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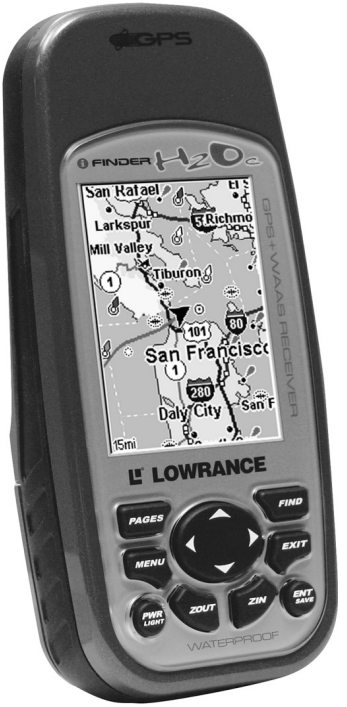

iFINDER® H2Oc

Handheld Mapping GPS Receiver

Operation Instructions

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WARNING!

A CAREFUL NAVIGATOR NEVER RELIES ON ONLY ONE METHOD TO OBTAIN POSITION INFORMATION.

CAUTION

When showing navigation data to a position (waypoint), a GPS unit will show the shortest, most direct path to the waypoint. It provides navigation data to the waypoint regardless of obstructions. Therefore, the prudent navigator will not only take advantage of all available navigation tools when traveling to a waypoint, but will also visually check to make sure a clear, safe path to the waypoint is always available.

WARNING!

When a GPS unit is used in a vehicle, the vehicle operator is solely responsible for operating the vehicle in a safe manner. Vehicle operators must maintain full surveillance of all pertinent driving, boating or flying conditions at all times. An accident or collision resulting in damage to property, personal injury or death could occur if the operator of a GPS-equipped vehicle fails to pay full attention to travel conditions and vehicle operation while the vehicle is in motion.

Section 1: Read Me First!

How this manual can get you out on the road, fast!

Welcome to the exciting world of GPS satellite navigation! We know you're anxious to begin finding your way with this hand-held technology, but we have a favor to ask. Before you grab the batteries and head outside, please give us a moment or two to explain how our manual can help you get the best performance from this remarkable little GPS unit.

First, we want to thank you for buying an iFINDER® H2OC. Whether you're a first-time user or a professional navigator, you'll discover that the iFINDER is a true pocket-sized, full-featured mapping GPS receiver. When you team an iFINDER with one of our specialized maps or our custom mapping software MapCreate™ 6, you have an incredible combination. No other consumer GPS mapping system on the market offers so much information and so many features in one package.

Our goal for this book is to get you on the road or out to the woods and water fast, with a minimum of fuss. Like you, we'd rather spend more time traveling, and less time reading the manual!

So, we designed our book so that you *don't* have to read the *whole thing* from front to back for the information you want. At the start (or end) of each segment, we'll tell you what content is coming up next. If it's a concept you're already familiar with, we'll show you how and where to skip ahead for the next important topic. We've also made it easy to look up any tips you may need from time to time. Here's how:

The manual is organized into seven sections. This first section is an introduction to Lowrance GPS. It tells you the basics you need to know before you can make the unit look around and tell you where you are.

Section 2 will help you get the batteries and MultiMedia Card (MMC) correctly installed in your iFINDER. We'll also tell you about some of the accessories available for your unit.

Section 3 is the heart of our book, *Easy Mode Operation*. It will introduce you to the basic GPS functions. We lead off this section with a one-page Easy Mode Quick Reference. **(If you've already figured out how to load the batteries yourself, and you just *can't* wait any longer, turn to the Quick Reference on page 28 and head outside with your iFINDER!)**

The rest of Section 3 contains short, easy-to-scan lessons that follow one another in chronological order. They're all you'll need to know to find your way on the water or in the wilderness quickly.

Easy Mode operation will meet the navigation needs of many users. But, after you've learned the basics (or if you already have some GPS experience), you may want to try out some of the iFINDER's many advanced navigation features. That brings us to Section 4, *Advanced Mode Operation*. After we introduce the Advanced Mode menus and submenus, this section contains the rest of the iFINDER's command functions, *organized in alphabetical order*.

When you come to a GPS menu command on the iFINDER screen, you can look it up in the manual by skimming over the table of contents or index, just flipping through Section 3 or scanning through the command portion of Section 4.

The iFINDER is ready to use right out of the box, but you can fine tune and customize its operation with dozens of options. We describe how to use general system options along with GPS options in Section 5, *System Setup and GPS Setup Options*. This section covers both Easy Mode and Advanced Mode options.

In Section 6, we go into more detail on one of the iFINDER's most remarkable capabilities — *Searching*. We'll introduce a couple of search examples in both the Easy and Advanced mode sections, but there are so many map items you can search for, we had to give this function its own section in the manual! For example, did you know the iFINDER can look up business phone numbers, functioning as a virtual Yellow Pages? We'll show you how in Section 6.

Finally, in Section 7, we offer *Supplemental Material*, including a list of the GPS datums used, warranties, and customer service information.

Now, if you're into the fine details, glance over the next segment on specifications to see just how much GPS power you hold in your hand. It's important to *us* (and our power users), but if *you* don't care how many waypoints the iFINDER can store or how long the batteries last, skip ahead to important information on how the iFINDER works, on page 4.

Capabilities and Specifications: iFINDER® H2Oc

General

Display:..... 2.83" (7.1 cm) diagonal color high contrast Film SuperTwist.

Resolution:..... 320 pixel x 240 pixel resolution; 256-color TFT display.

Backlighting:..... White LED screen backlighting for night and low-light viewing.

Input power:.....3 volts DC (two 1.5v AA batteries); operates up to 12 hours on batteries when using one-second position updates (longer update rates further extend battery life, but will reduce GPS accuracy). Cigarette lighter power adapter included.

Case size:..... 5.6" H x 2.5" W x 0.9" D (142 x 65 x 25 mm); water resistant to IPX-2 standards.

Weight:.....8.48 ounces (242 grams) with alkaline batteries.

GPS

Receiver: ..... Internal, 16 parallel channel GPS+WAAS+EGNOS; external active or passive antennas optional.

Active Antenna Voltage:..... 3 volts DC.

Recording: ..... Removable MMC or SD memory cards for recording GPS trip details, displaying custom maps, upgrading operating system software and transferring trip data to personal computer without a slow serial connection.

MMC slots: ..... One, inside battery compartment. Accepts non-proprietary MMC or SD memory cards.

Background map:..... Built-in custom, detailed Lowrance map. Contains: low-detail maps of the whole world (containing cities, major lakes, major rivers, political boundaries); and medium-detail maps of the United States (containing all incorporated cities; Interstate, U.S. and state highways; Interstate highway exits and exit services information; large- and medium-sized lakes and streams.)

Custom mapping: ..... Accepts custom, higher-detail MapCreate™ 6 mapping on memory cards, with searchable Points-of Interest database of hotels, restaurants, shopping, services and more. Navionics® charts on MMC cards optional.

Mapping memory: ..... Up to 1 GB on one MMC (MultiMedia Card) or SD (Secure Digital Card.)

Position updates: ..... Up to every second.

Position points: ..... 1,000 waypoints; 1,000 event marker icons.

Graphic symbols for waypoints or event marker icons: ..... 42.

Routes: ..... 100; up to 100 waypoints per route.

Plot Trails: ..... 99 savable; up to 9,999 points per trail.

Man Overboard: ..... MOB feature precisely marks man overboard location with special icon, then automatically displays navigation data to that position.

Audible alarms: ..... Arrival/off-course/destination passed/anchor.

Com Port: ..... One serial communications port, NMEA 0183 version 2.0 compatible. Allows exchange of position data with another device, such as an autopilot or personal computer. Optional combination serial/power cable available.

Zoom range: ..... 40 ranges; 0.02 to 4,000 miles.

NOTE:

The above memory capacities refer only to the iFINDER's on-board memory. The amount of GPS data you can record and save for recall later is only limited by the number of MMC cards you have.

How the iFINDER H2Oc Works

You'll navigate faster and easier if you understand how the iFINDER scans the sky to tell you where you are on the earth — and, where you're going. (But if you already have a working understanding of GPS receivers and the GPS navigation system, skip on ahead to Section 2, *Installation & Accessories* on page 11. If you're new to GPS, read on, and you can later impress your friends with your new-found knowledge.)

First, think of your iFINDER as a small but powerful computer. (But don't worry — we made the iFINDER easy to use, so you don't need to be a computer expert to find your way!) The iFINDER includes a keypad and a screen with menus so you can tell it what to do. The screen also lets the iFINDER show your location on a moving map, as well as point the way to your destination.

This pocket-sized computer also contains an antenna and specialized scanning receiver, something like your car radio. But instead of your favorite dance tunes, this receiver tunes in to a couple of dozen GPS satellites circling the earth. (It will also listen in to the WAAS and satellites in orbit, but more about that in the upcoming segment introducing you to GPS and WAAS.)

The iFINDER listens to signals from as many satellites as it can see above the horizon, eliminates the weakest signals, then computes its location in relation to the remaining satellites. Once the iFINDER figures its latitude and longitude, it plots that position on the moving map shown on the screen. While the screen is updated once a second, your iFINDER is making these internal calculations and determining its position several times a second!

The performance doesn't stop there. Stored in the permanent memory of each iFINDER is a basic background map of the *entire* world. We lock it in here at the factory — you can't change or close this map.

Another portion of the iFINDER's onboard memory is devoted to *recording* GPS navigation information, which includes waypoints, event marker icons, trails and routes. This lets you look back the way you came. Think of this data storage like the hard drive memory in a computer or a tape in a cassette tape recorder. You can save several different GPS data files, erase 'em and record new ones, over and over and over again. Like any computer file, these ***GPS Data Files*** (file format *.usr) can be shared between iFINDERs, other Lowrance GPS units, sonar/GPS units and even personal computers.

The iFINDER has one more thing in common with a personal computer. Just as computers have a floppy disk drive for storing and exchanging files, the iFINDER has a slot for an MMC (MultiMedia Card) or SD (Secure Digital) Card flash memory card. These solid-state memory devices are about the size of a postage stamp, but can hold data ranging from 8 MB to 1 GB in size. (Compare that to a floppy disk's 1.44 MB capacity!) The iFINDER uses all that MMC space for two key purposes.

First, you can backup your onboard GPS Data Files by copying them to the MMC. Since the MMC is removable (like a floppy disk or a cassette tape), you can store these GPS Data Files on a personal computer equipped with an MMC card reader. (Or store them on a pocketful of MMCs, if you don't have a computer.) Our MapCreate mapping software can save, edit or create its own GPS Data Files, which can be copied to the MMC and then loaded from the MMC into the iFINDER's memory.

NOTE:

No matter where they come from, GPS Data Files *must* be loaded from the MMC into memory before the iFINDER can use them.

The other key GPS use for MMCs is storage of special high-detail, custom maps, which you can produce on your computer with our MapCre-

ate software. These MapCreate custom maps contain much greater detail than the basic background map.

These ***Custom Map Files*** (file format *.lcm) can also be shared between iFINDERs, other Lowrance GPS or sonar/GPS units and personal computers.

You make your own Custom Map Files with our MapCreate software, but you don't have to. We also sell ready-to-use FreedomMaps™. These custom maps are pre-loaded on MMCs. (No computer work required!).

The iFINDER automatically reads Custom Map Files directly from the MMC or SD Card. To use a custom map, all you need to do is slide an MMC containing a map into the unit.

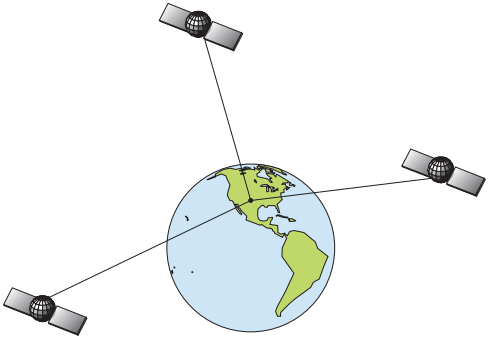
Introduction to GPS, WAAS and EGNOS

Well, now you know the basics of how the iFINDER does its work. You might be ready to jump ahead to Section 2, *Installation & Accessories,* on page 11, so you can install the batteries. Or you might want to see how our text formatting makes the manual tutorials easy to skim. If that's the case, move on to "How to Use This Manual" on page 8. But, if you want to understand the current state of satellite navigation, look over this segment describing how GPS and its new companions WAAS and EGNOS work together to get you where you're going.

The Global Positioning System (GPS) was launched July 17, 1995 by the United States Department of Defense. It was designed as a 24-hour-a-day, 365-days-a-year, all-weather global navigation system for the armed forces of the U.S. and its allies. Civilian use was also available at first, but it was less accurate because the military scrambled the signal somewhat, using a process called Selective Availability (SA).

GPS proved so useful for civilian navigation that the federal government discontinued SA on May 2, 2000, after the military developed other methods to deny GPS service to enemy forces. Reliable accuracy for civilian users jumped from 100 meters (330 feet) under SA to the present level of 10 to 20 meters (about 30 to 60 feet.)

Twenty-four satellites orbit 10,900 nautical miles above the Earth, passing overhead twice daily. A series of ground stations (with precisely surveyed locations) controls the satellites and monitors their exact locations in the sky. Each satellite broadcasts a low-power signal that identifies the satellite and its position above the earth. Three of these satellites are spares, unused until needed. The rest virtually guarantee that at least four satellites are in view nearly anywhere on Earth at all times.



A minimum of three satellites are required to determine a 2D fix.

The system requires signal reception from three satellites in order to determine a position. This is called a 2D fix. It takes four satellites to determine both position and elevation (your height above sea level — also called altitude). This is called a 3D fix.

Remember, the unit must have a clear view of the satellites in order to receive their signals. Unlike radio or television signals, GPS works at very high frequencies. These signals can be easily blocked by trees, buildings, an automobile roof and even your body.

Like most GPS receivers, the iFINDER doesn't have a compass or any other navigation aid built inside. It relies solely on the signals from the satellites to calculate a position. Speed, direction of travel, and distance all are calculated from position information. Therefore, in order for the iFINDER to determine direction of travel, you must be moving and the faster, the better. This is not to say that it won't work at walking or trolling speeds — it will. There will be more "wandering" of the data shown on the display.

GPS alone is plenty accurate for route navigation, but the U.S. Federal Aviation Administration has special aircraft navigation needs that go beyond basic GPS. Consequently, the FAA has developed a program to boost GPS performance with its Wide Area Augmentation System (WAAS). The FAA commissioned the system on July 11, 2003. EGNOS (European Geostationary Navigation Overlay Service) is the European equivalent of WAAS. Like WAAS, it was created to make GPS position calculation more accurate.

WAAS is designed to increase GPS accuracy to within 7.6 meters vertically and horizontally, but according to the FAA, it consistently comes within 1-2 meters horizontal and 2-3 meters vertical. It does this by broadcasting correction signals on GPS frequencies. Your unit automatically receives both GPS and WAAS signals.

There, however, are some fringe areas of the U.S., including parts of Alaska, that do not yet receive robust WAAS coverage. Continued WAAS development is planned to extend WAAS coverage in the years to come.

WAAS boosts the accuracy of land GPS navigation, but the system is designed for aircraft. The satellites are in a fixed orbit around the Equator, so they appear very low in the sky to someone on the ground in North America. Aircraft and vessels on open water can get consistently good WAAS reception, but terrain, foliage or even large man-made structures can sometimes block the WAAS signal from ground receivers.

You'll find that using your GPS receiver is both easy and amazingly accurate. It's easily the most accurate method of electronic navigation available to the general public today. Remember that this receiver is only a tool. Always have another method of navigation available, such as a map or chart and a compass.

Also remember this unit will always show navigation information in the shortest line from your present position to a waypoint, regardless of terrain! It only calculates position. It can't know what's between you and your destination. It's up to you to safely navigate around obstacles, no matter how you're using this product.

How to use this manual: typographical conventions

Many instructions are listed as numbered steps. The keypad and arrow "keystrokes" appear as boldface type. So, if you're in a real hurry (or just need a reminder), you can skim the instructions and pick out what menu command to use by finding the boldface command text. The following paragraphs explain how to interpret text formatting for those commands and other instructions:

Arrow Keys

The arrow keys control the movement of dotted crosshairs lines (the cursor) on your mapping screen. The arrow keys also help you move around the iFINDER menus so you can execute different commands. They are represented by symbols like these, which denote the down arrow key, the up arrow, the left arrow and the right arrow: ↓ ↑ ← →.

Keyboard

The other keys perform a variety of functions. When the text refers to a key to press, the key is shown in bold, sans serif type. For example, the "Enter/Save" key is shown as **ENT** and the "Menu" key is shown as **MENU**.

Menu Commands

A menu command or a menu option will appear in small capital letters, in a bold sans serif type like this: **ADVANCED MODE**. These indicate that you are to select this command or option from a menu or take an action of

some kind with the menu item. Text that you may need to enter or file names you need to select are shown in italic type, such as *trail name*.

Instructions = Menu Sequences

Most functions you perform with the iFINDER are described as a sequence of key strokes and selecting menu commands. We've written them in a condensed manner for quick and easy reading.

For example, instructions for backtracking a trail in Easy Mode would look like this:

1. Press **MENU** | ↓ to **NAVIGATE TRAIL** | **ENT**.
2. Now, begin moving and follow your iFINDER.

Translated into complete English, step 1 means: "Press the Menu key. Next, press the down arrow key to scroll down the menu and select (highlight) the Navigate Trail menu command. Finally, press the Enter key."

Also note that throughout this text, we will refer to the iFINDER H2OC as iFINDER, or as the unit.

Notes

Section 2:
Installation & Accessories

Power

The iFINDER operates from AA batteries or on 3 volts DC using an optional external power cable with a cigarette lighter adapter. When the power cable is used, the iFINDER automatically switches to external power. If the external power fails, the unit will switch to battery power.

Flash memory will keep your stored data safe and accessible for the life of the product. After the unit is turned off, no battery or external power is needed to store your data.

Batteries

The unit requires two, 1.5-volt AA batteries. We recommend you use alkaline batteries for the best trade-off between battery life and cost. We recommend DURACELL® brand, but other brands will work. If you're looking for an extended-life battery, the Duracell® ULTRA battery has performed well in our tests.

You can also use rechargeable AA alkaline batteries, such as those made by RAYOVAC®, or rechargeable AA nickel metal hydride (NiMH) batteries. We do not recommend nickel cadmium (NiCd) rechargeable batteries because we tend to get poor battery life from them.

Rechargeable alkaline batteries will not last as long as standard alkaline batteries. Rechargeable NiMH batteries, however, should give you suitable battery life.

Lithium batteries are lighter than alkaline, and with some brands of lithium batteries, the iFINDER H2OC will float. We've tested the iFINDER H2OC using Energizer® e²® lithium batteries, and it remained afloat.

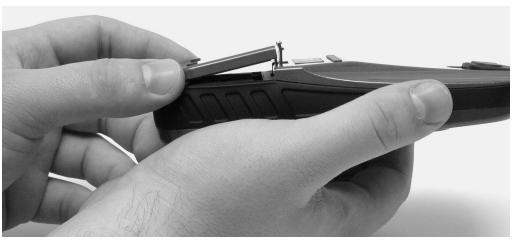
NOTE:

The battery gauge on the Satellite Status Page may not read accurately with some battery brands because discharge rates can vary significantly. This is especially true for rechargeables. This battery gauge was calibrated for alkaline batteries.

Do not mix different battery types. Mixing battery types may cause leakage. (For example, don't use both alkaline and NiMH batteries at the same time, and don't use standard alkalines with rechargeable alkalines.)

Battery Installation

Turn the unit over so that the back is facing you. With your thumb or nail, pull back on the small clip to release the battery cover latch as shown in the following images. Once the latch is released, pull the battery cover out of the grooves in the bottom of the case.



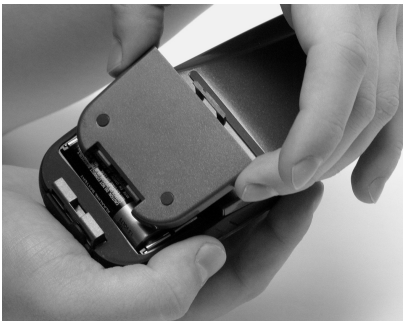
Remove the iFINDER battery cover.

Install the batteries according to the embossed signs in the battery compartment. They show the correct polarity. Point the positive pole of the upper battery to the left; point the positive pole of the bottom battery to the right.

NOTE:

Inside the battery compartment is a rotating MMC card lock. The grip on this lock must be turned parallel with the direction of the batteries for them to fit properly.

Replace the battery compartment cover. First, align the latch tabs at the bottom of the cover with the slots at the case's base. Press the cover into place, then firmly push up on the clip at the top of the cover until it latches in place. There is usually an audible click when the latch engages.



Replace battery compartment cover. Align tabs with slots in the base (left). Press latch firmly until it clicks (right).

Cigarette Lighter Power Adapter

To use external DC power, plug the power cable's cigarette lighter adapter into a cigarette lighter receptacle. Next, pull aside the rubber cover on the bottom of the unit and insert the other connector as shown in the following image. A small clip on the connector should hold the connector in place.

Attach external power cable to the iFINDER.

WARNING:

Do not remove the cigarette lighter adapter and splice the exposed wires directly to a 12-volt power system. The cigarette lighter adapter contains *in the plug* a protective fuse and a voltage regulator to convert 12 volts down to about 3 volts. Without this regulator, connecting your unit to a 12-volt power source will destroy the unit. This damage will not be covered by your warranty.

The iFINDER can use two other optional external cables to supply a NMEA/serial data connection or a combination of power and data. These cables are discussed in the following segment on NMEA connections.

NMEA Cable Connections

NMEA is a standard communications format for marine electronic equipment. For example, an autopilot can connect to the NMEA interface on this unit and receive positioning information. The unit can exchange information with any device that transmits or receives NMEA 0183 data.

To exchange NMEA data, Lowrance offers an optional data only cable and a power/data combo cable:

The PC-DI7 is a NMEA/serial communications cable. It has a standard female DB-9 connector on one end to attach your unit to a computer's serial communications port.

The PC-DI8 combines a cigarette lighter power adapter with a DB-9 plug for a NMEA/serial com port connection to a laptop computer or other device. This is our favorite cable for connecting the iFINDER H2OC to a laptop computer in a RV or other vehicle. By transmitting NMEA data to the computer, you can get live position data for GPS-compatible mapping software.

You can also run one of our free Lowrance GPS emulators on your laptop and operate it with real-time position information.

To use it, plug the power adapter into a cigarette lighter socket, plug the DB-9 connector into a serial port on the computer and attach the cable to the iFINDER. Then see "Com Port Configuration" in Sec. 5.

MMC or SD Memory Card Installation

Your iFINDER uses a MultiMedia Card to store information, such as custom maps, waypoints and other GPS data. The unit can also use Secure Digital Cards (SD cards) to store information.

NOTE:

Throughout this manual, we will use the term MMC, but just remember your unit can use an MMC *or* SD card to store data.

Both of these solid-state flash memory devices are about the size of a postage stamp. A SD card is slightly thicker than an MMC. As this manual went to press, MMC and SD cards were available in storage capacities of up to 1 GB.

Additional MMC cards are available from LEI Extras. See ordering information inside the back cover of this manual. MMCs and SD cards are also available at many consumer electronics stores.

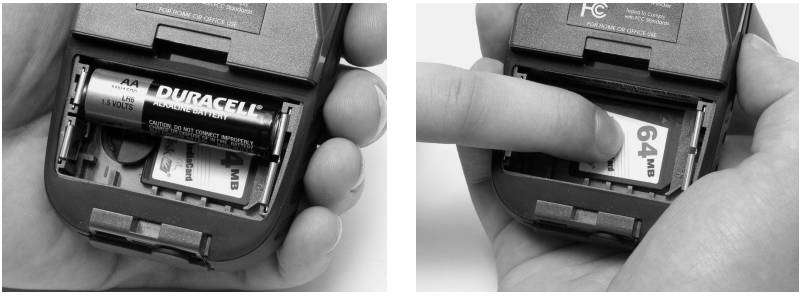
The MMC slot is located in the battery compartment, beneath the batteries on the right side of the unit. The contact pins are springy, to make it easier to insert and remove a MMC card.

To remove an MMC

1. Remove battery compartment cover.

2. Remove batteries, if present.

3. Hold unit facedown in right hand. Use your thumb or index finger and press down on the center of the MMC label.



Remove an MMC Card.

4. Drag the MMC from the slot into the battery compartment.

5. Turn the iFINDER face up and give it a shake to dump the MMC into your hand or onto a work surface.

To add an MMC or SDC

1. Remove battery compartment cover.

2. Remove batteries, if present.

3. Hold unit facedown in right hand. Drop the MMC card into the slot, label-up, with the notched edge toward the right.

4. Press down on the center of the label and slide the card to the right.

Add an MMC Card.

5. Turn the plastic rotating card lock until it holds the card firmly in place with the grip parallel to the direction of the batteries.

6. Replace the batteries and battery cover.

FreedomMaps™

FreedomMaps are pre-made custom maps that cover multiple states, provinces, countries or other geographic regions on a single memory card. They give you all the features found in our MapCreate™ mapping software, but without the necessity of using a computer. FreedomMaps are available for the United States, Canada and Europe. In 2004, FreedomMaps with topographic contours became available for the United States and Canada.

Like custom maps built in MapCreate, the custom map on a FreedomMap card contains all of these features: rivers/lakes/tributaries; more than 60,000 critical navigation aids; more than 10,000 wrecks/obstructions in coastal and Great Lakes waters; interstate/federal/state highways; interstate exit services; searchable Points-of-Interest (POI) database including: airports, hotels, restaurants, entertainment, emergency services; rural roads and city streets; cities and towns; railways; key landmarks; searchable street intersections and street addresses; national parks and forests with boundaries; wildlife preserves; and more!

FreedomMaps come to you preloaded on a single 128 or 256 MB memory card. Insert the memory card into your Lowrance GPS unit, and you're ready to go.

FreedomMaps are available through LEI-Extras. To order a card (or for list of areas available) see ordering information in the back of this manual.

External Antenna

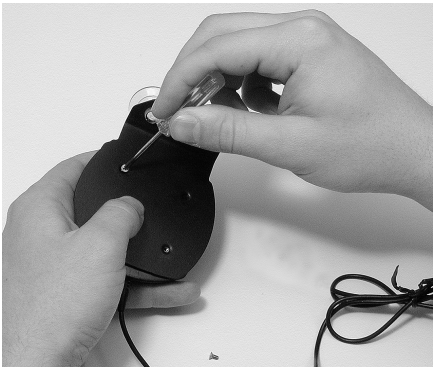
A GPS antenna requires a clear view of the sky for optimum operation. Inside a vehicle, your iFINDER can sometimes maintain satellite lock while sitting on the seat beside you, but we don't recommend this for optimum performance.

Since the view is restricted to what can be seen through the windows, this operating mode will reduce position accuracy and will increase the chance of losing satellite lock. Inside a vehicle, the unit operates best with an optional external antenna mounted on the windshield, on the dash or on top of the vehicle.

The optional external antenna can use a magnetic base that allows temporary mounting on any flat ferrous metal surface. A suction-cup mount allows you to attach the antenna to a windshield.

The iFINDER H2OC can use the passive FA-8 antenna or the active RAA-3 antenna. The active antenna offers a further performance boost by amplifying the satellite signals it receives. This is especially helpful when operating in areas like dense forests, which can obstruct GPS

signals. Your unit will automatically switch between the active RAA-3 and its internal antenna (located in the top of the case). If you purchase the passive FA-8, you must use a menu check box to manually switch between it and the internal antenna. See the topic "External Passive Antenna" in Sec. 5.



Attach the iFINDER antenna to windshield bracket with two screws.

You may achieve good results by placing the external antenna on the top of the dash, at the base of the windshield. A piece of the rubber non-skid shelf liner material available in recreational vehicle supply stores will also help hold the antenna in place.

To use the antenna: Mount it in a location with an unobstructed view of the sky. Plug the connector into the unit's antenna socket, located on the back, in the upper left corner of the case.

R-A-M® Bracket Mounting Systems

Several R-A-M® mounting brackets are available for your iFINDER. There are permanent mounts and temporary mounts suitable for virtually any boat, aircraft, vehicle, even motorcycle handlebars.

Two R-A-M mounting systems for your unit.

One model has a mounting arm and cradle attached to a swivel ball plate that can be screwed or bolted to a supporting surface. Another has a moldable, weighted, rubber foot and gooseneck for support virtually anywhere without screws or adhesives. R-A-M even has suction cup bases for attachment to windscreens or fiberglass surfaces. See your Lowrance dealer or visit the LEI web site for the latest options. Accessory ordering information is on the inside back cover of this manual. For a complete look at the many mounting options, visit the R-A-M web site at www.ram-mount.com.

Other Accessories

Other iFINDER accessories include MMC cards, MMC card readers and MapCreate™ 6 custom mapping software for your computer. (The iFINDER H2OC Plus model ships with the GPS Accessory Pack, which is composed of the MapCreate CDs, the card reader and one memory card.)

If these accessories are not available from your dealer, see the accessory ordering information on the inside back cover of this manual.

MapCreate™ 6 CD-ROM and MMC card reader for USB ports.

Section 3:
Easy Mode Operation

This section addresses Easy Mode operation for the iFINDER's main GPS functions. The principles are the same in both operating modes, so this discussion also serves as a good introduction to Advanced Mode work.

Before you turn on the iFINDER, it's a good idea to learn about the different keys, the three Page screens and how they all work together. BUT, if you just can't wait to get outside, grab the batteries and turn to the one-page ***Quick Reference*** on page 28.

Keypad

iFINDER H2OC keypad.

1. **PWR/LIGHT** (Power & Light) – The PWR key turns the unit on and off and activates the backlight.

2. **PAGES** – Pressing this key switches the unit between the three different page screens in Easy Mode. (Satellite, Navigation and Map.) Each page represents one of the unit's major operation modes.

3. **MENU** – Press this key to show the menus, which allow you to select or adjust a feature from a list.

4. **ARROW KEYS** – These keys are used to navigate through the menus, make menu selections, move the map cursor and enter data.

5. **ENT** (Enter) – This key allows you to save data, accept values or execute menu commands.

6. **EXIT** – The Exit key lets you return to the previous screen, clear data or close a menu.

7. **FIND** – The Find key launches the iFINDER search menus and some navigation functions.

8. **ZOUT** – (Zoom Out) – This key lets you zoom the screen out to see a larger geographic are on the map. Less detail is seen as you zoom out.

9. **ZIN** – (Zoom In) – This key lets you zoom the screen in to see greater detail in a smaller geographic area on the map.

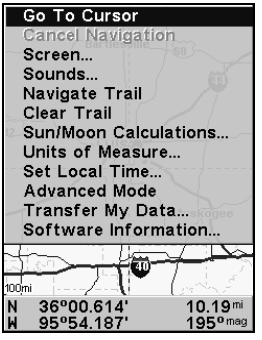
Power/lights on and off

To turn on the unit, press **PWR**. To turn on the backlight, press **PWR** again. Pressing **PWR** once again will turn off the backlight. Press **EXIT** to clear any message or alarm displays.

Turn off the unit by pressing and holding the **PWR** key for 3 seconds.

Main Menu

Easy Mode has a single Main Menu, which contains function commands and setup option commands. The tutorial lessons in this section will deal only with functions — the basic commands that make the iFINDER do something. The iFINDER will work fine for these lessons right out of the box with the factory default settings. But, if you want to learn about the various options, see *Sec. 5, System Setup and GPS Setup Options*.



Main Menu, Easy Mode.

The Main Menu commands and their functions are:

Go To Cursor: navigates to the current cursor position on the map

Cancel Navigation: turns off the navigation command after you have reached your destination.

Screen: changes the contrast or brightness of the display screen and backlight delay.

Sounds: enables or disables the sounds for key strokes and alarms and sets the alarm style.

Navigate Trail: sets up navigation back to the start of the current trail.

Clear Trail: clears all the points stored in the plot trail.

Sun/Moon: finds the rising and setting time of the sun and the moon.

Units of Measure: changes the speed or distance units. Also used to change the heading, time and temperature formats.

Set Local Time: sets the time for your local time zone.

Advanced Mode: used to switch from Easy Mode to Advanced Mode. Easy Mode shows only the most commonly used features to simplify the interface and simplify operation.

Transfer My Data: load or save GPS Data Files containing waypoints, routes, trails and event marker icons.

Software Information: shows the product name and software version of the unit's operating system software, as well as copyright notices.

Pages

Easy Mode has three Page displays that represent the three major operating modes. They are the Satellite Status Page, the Navigation Page and the Map Page. The pages are accessed by pressing the **PAGES** key. Pressing **PAGES** repeatedly scrolls among the three screens in an endless loop.

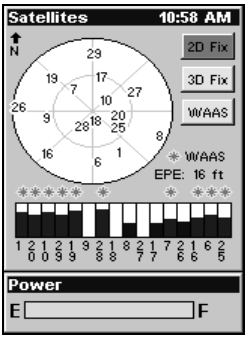
Satellite Status Page

This Page, shown in the following images, provides detailed information on the status of the iFINDER's satellite lock-on and position acquisition. To get to the Satellite Status Page, press **PAGES** repeatedly until it appears on the screen.

No matter what page you are on, a flashing current position indicator/question mark symbol and flashing GPS data displays indicate satellite lock has been lost and there is no position confirmed. This page shows you the quality and accuracy of the current satellite lock-on and position calculation.

WARNING:

Do not begin navigating with this unit until the numbers have stopped flashing!



Satellite lock-on with a 3D position acquired.

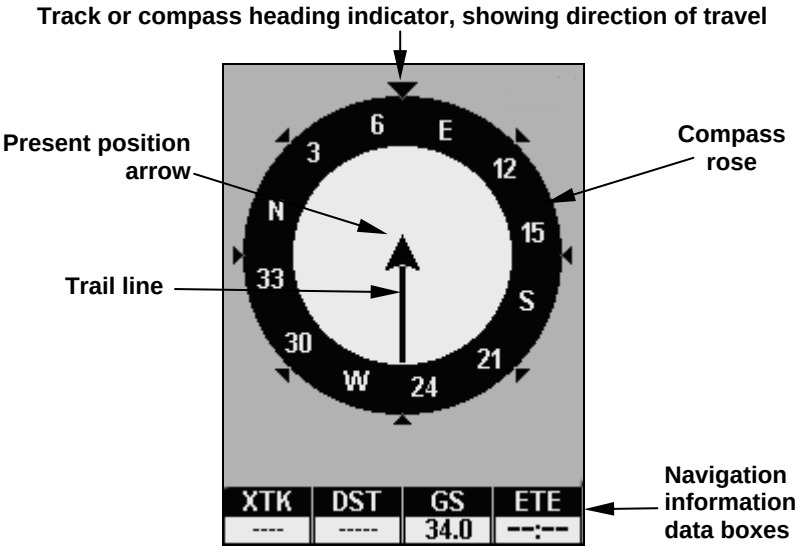
This screen shows a graphical view of the satellites that are in view. Each satellite is shown on the circular chart relative to your position. The point in the center of the chart is directly overhead. The small inner ring represents 45° above the horizon and the large ring represents the horizon. North is at the top of the screen. If you hold the unit facing north, you can use it to see which satellites are obstructed by obstacles in your immediate area. The GPS receiver is tracking satellites that are in bold type. The receiver hasn't locked onto a satellite if the number is grayed out, which means it isn't being used to resolve the position.

Beneath the circular graph are the bar graphs, one for each satellite in view. Since the unit has 16 channels, it can dedicate one channel per visible satellite. The taller the bar on the graph, the better the unit is receiving signals from the satellite.

The Estimated Position Error (EPE), shown above the bar graphs, is the expected error from a benchmark location. In other words, if the EPE shows 50 feet, then the position shown by the unit is estimated to be within 50 feet of the actual location. This also gives you an indicator of the fix quality the unit currently has. The smaller the position error number, the more accurate the fix is. If the position error flashes dashes, then the unit hasn't locked onto the satellites and the number shown isn't valid.

Navigation Page

This Page has a compass rose. It shows your direction of travel and the direction to a recalled waypoint. When you're not navigating to a waypoint or destination, the navigation screen looks like the one in the following image. No graphic course information is displayed. Your position is shown by an arrow in the center of the screen. Your trail history, or path you've taken, is illustrated by a line extending from the arrow. The arrow pointing down at the top of the compass rose indicates the current track (direction of travel) you are taking.



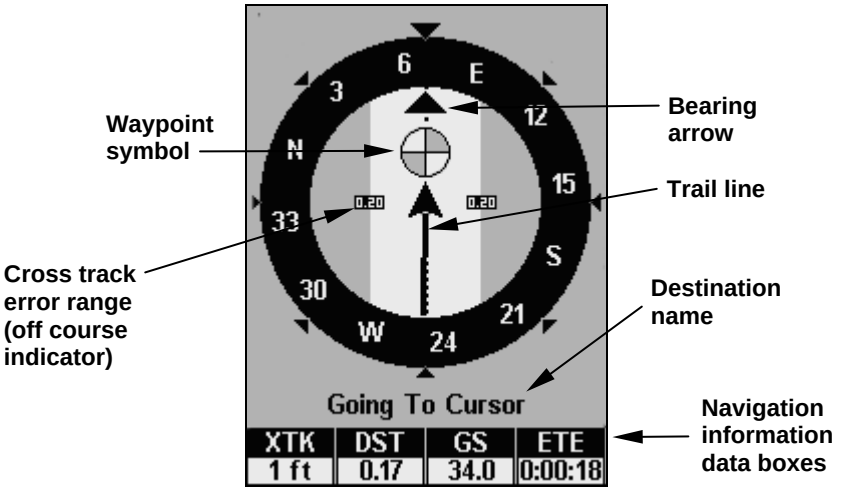
Navigation Page, recording a trail, traveling east. Page looks like this when the iFINDER is not navigating to a waypoint , following a route, or backtracking a trail.

When navigating to a waypoint or following a route, the Navigation screen looks like the one shown in the next image. Your ground speed, track, distance, course and bearing to waypoint, are all shown digitally on this screen.

The current cross track error is shown in the XTK box. This is the distance you are off-course to the side of the desired course line. The course line is an imaginary line drawn from your position when you started navigating to the destination waypoint. It's shown on the navigation page as a vertical dotted line.

Lines on either side of the present position show the current cross track error range. The default for the cross track error range is 0.20 mile. For example, if the present position symbol touches the right cross track error line, then you are 0.20 mile to the right of the desired course. You need to steer left to return to the desired course. You can use the **ZIN** or **ZOUT** keys to change the cross track error range. A circular symbol illustrating your destination (waypoint) appears on the screen as you approach the waypoint.

Travel Time is the time that it will take to reach your destination at your present closing speed. Arrival Time is the local time it will be when you arrive at the destination, based upon your present closing speed and track.



Navigation Page, going to cursor. Driver is headed east (a 68º track) toward a cursor location 68º (bearing) away. The cross track error range (white corridor) is 0.20 miles either side of the course. The driver is headed toward the cursor location, which is 0.17 miles away. The vehicle is basically on course (off course only 1 foot). Traveling at 34 mph. The driver will arrive at the waypoint in 18 seconds.

Map Page

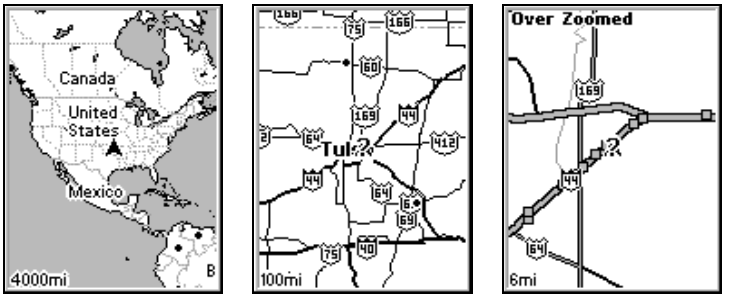
The map screens show your course and track from a bird's-eye view. By default, this unit shows the map with north always at the top of the screen. (This can be changed using options in Advanced Mode. See the topic *Map Orientation*, in Sec. 5.) If you're navigating to a waypoint, the map also shows your starting location, present position, course line and destination.

NOTE:

When our text says, navigating to a waypoint, we really mean navigation to *any* selected item, whether it is a waypoint you made, a map feature or an item (like a restaurant) from the POI database.

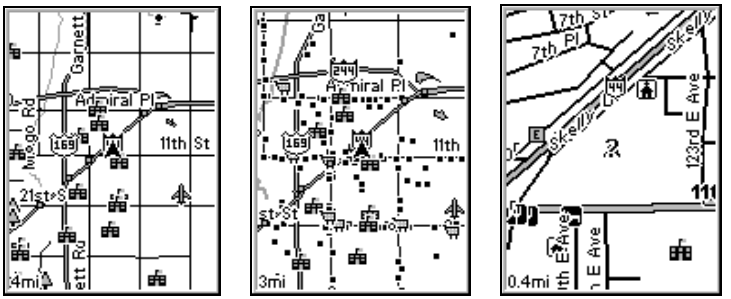
Using the map is as simple as pressing the **PAGES** key. A screen similar to those in following images appears. The arrow flashing in the center of the screen is your present position. It points in the direction you're traveling. The solid line extending from the arrow is your plot trail, or path you've taken. Remember, a flashing question mark/arrow symbol or flashing text displays means the iFINDER has not yet calculated a position.

The zoom range is the distance across the map. This number is shown in the lower left corner of the screen. In the first example below, the range is 4,000 miles from one side of the map to the other. The Zoom In and Zoom Out keys zoom the map to enlarge or reduce its coverage area. There are 40 zoom ranges, from 0.02 miles to 4,000 miles.



Map Page opening screen (left); Map zoomed to 100 miles (center); Map zoomed to 6 miles (right). Over Zoomed means you have reached the detail limits in an area covered only by the basic background map. Zooming in any closer will reveal no more map details because a high-detail custom map for this area has not been loaded on the MMC.

If you're using the factory-loaded background map, the maximum zoom range for showing *additional* map detail is 8 miles. You can continue to zoom in closer, but the map will be enlarged without revealing more map content (except for a few major city streets). Load your own high-detail custom map made with MapCreate and you can zoom in to 0.02 miles with massive amounts of accurate map detail.



Map Pages with high-detail map of an urban area loaded on the MMC. Arterial streets appear at the 4-mile zoom range (left), with a few Point icons visible. Numerous dots representing Points of Interest become visible at the 3-mile range (center). At the 0.4-mile zoom (right), you can see an interstate highway with an exit, major and minor streets as well as Point of Interest icons.

Background map vs. MapCreate map content

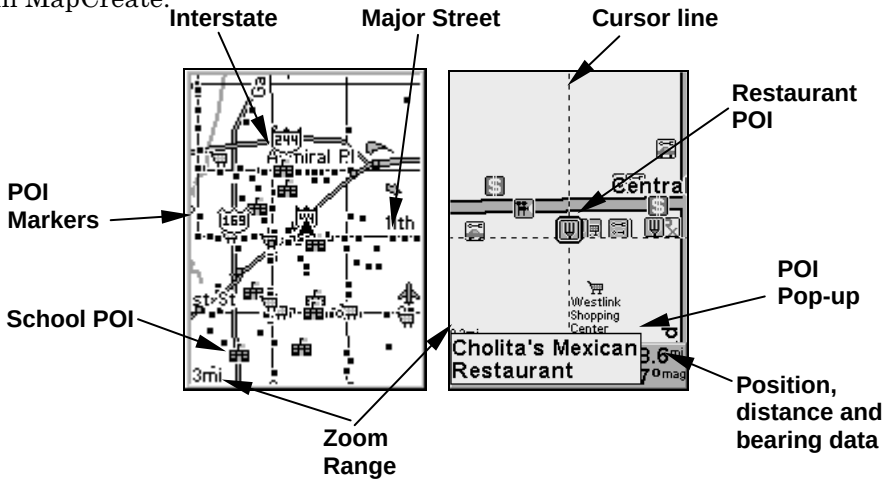
The background map includes low-detail maps of the whole world containing cities, major lakes, major rivers, political boundaries and medium-detail maps of the United States.

Medium-detail U.S. maps contain all incorporated cities; shaded metropolitan areas; county boundaries; shaded public lands (such as national forests and parks); some major city streets; Interstate, U.S. and state

highways; Interstate highway exits and exit services information; large- and medium-sized lakes and streams and more than 60,000 navigation aids and 10,000 wrecks and obstructions in U.S. coastal and Great Lakes waters.

MapCreate custom maps include massive amounts of information not found in the background map. MapCreate contains the searchable Points of Interest database, all the minor roads and streets, all the landmark features (such as summits, schools, radio towers, etc.); more rivers, streams, smaller lakes and ponds and their names.

What's more important is the large-scale map detail that allows your GPS unit to show a higher level of position accuracy. For example, the background map would show you the general outline and approximate shape of a coastline or water body, but the higher detail in MapCreate shows the shoreline completely and accurately (finer detail). Many smaller islands would not be included in the background map, but are in MapCreate.



When the map is zoomed out far enough, most POIs appear as square dots (left). As you zoom in closer, the symbols become readable icons. In the 0.3-mile zoom example (right), the cursor has selected Cholita's Mexican Restaurant POI, which triggers a pop-up box with the POI name. This pop-up box works on POIs at any zoom range.

Tip:

In some urban areas, businesses are so close to one another their POI icons crowd each other on the screen. In the preceding figure, you can see a packed string of POIs all along the west half of 11th Street. You can reduce screen clutter and make streets and other map features easier to see by turning off POIs you're not watching for. To see how, check the text on Map Detail Category Selection, in

Sec. 5. It shows how to use the Map Categories Drawn menu to turn individual POI displays off and on. Even though their display is turned off, you can still search for POIs and their icons will pop-up when your unit finds them for you.

The following page contains a 12-step quick reference for Easy Mode operation. If you don't want to carry the manual with you as you practice with the iFINDER, you might consider photocopying this quick reference page and tucking it into your pocket.

IFINDER® H2Oc Easy Mode Quick Reference

Start outdoors, with a clear view of the open sky. As you practice, try navigating to a location a few blocks away. Navigation in too small a space, like a backyard, will constantly trigger arrival alarms.

1. Install two AA batteries and an MMC card in the battery compartment on back of case. (See installation details beginning on page 11.)

2. To turn on the iFINDER, press **PWR** key.

3. Opening screen displays map of North America at the 4,000-mile zoom range. Rotate through the three main Page screens (Map Page, Satellite Status Page, Navigation Page) by repeatedly pressing **PAGES** key. Switch Pages to display Satellite Status Page.

4. Wait while unit locates satellites and calculates current position. Process is visible on Satellite page. This takes an average of 1 minute or less under clear sky conditions (unobstructed by terrain or structures.) When the unit acquires position, a tone sounds and a position acquired message appears.

5. With position acquired, press **PAGES** key to display Map Page, which shows a bird's eye view of the earth. You can move around the map by zooming out, zooming in or scrolling.

Zoom in closer to see greater detail: press **ZIN** (zoom in key.)
Zoom out to see more area, less detail: press **ZOUT** (zoom out key.)
Scroll map north, south, east or west using arrow keys ↑ ↓ → ←.

To stop scrolling and return to current position on map, press **EXIT** key.

6. Set Home waypoint at your current position so you can navigate back here: press **ENT** | **ENT**.

7. Zoom/scroll map to find a nearby object or location. Use arrow keys to center cursor crosshairs over the map object or location.

8. To navigate to the selected location, press **MENU** | **ENT** | **EXIT**. Follow steering arrow on Map Page or compass bearing arrow on Navigation Page.

9. At destination, Arrival Alarm goes off. To clear it, press **EXIT**. Cancel navigation: press **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

10. Navigate back home by **GO HOME** or **NAVIGATE TRAIL**. To ***Go Home***: press **FIND** | **ENT** and follow navigation arrows. To ***Navigate Trail:*** press **MENU** | ↓ to **NAVIGATE TRAIL** | **ENT**. Wait while route is calculated, then follow arrows.

11. Back home, Arrival Alarm goes off; press **EXIT**. Cancel navigation: press **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

12. To turn off the iFINDER, press and hold **PWR** key for three seconds.

Find Your Current Position

Finding your current position is as simple as turning on the iFINDER. The unit automatically searches for satellites and under a clear sky, calculates its position in approximately one minute or less.

NOTE:

Clear sky means open sky, unobstructed by terrain, dense foliage or structures. Clouds do not restrict GPS signal reception.

If for some reason satellite acquisition takes longer, you may be inside a structure, a vehicle or in terrain that is blocking signal reception. To correct this, be sure you are positioned so the unit has as clear a view of the sky as possible, then turn the unit off and back on again.

Moving Around the Map: Zoom & Cursor Arrow Keys

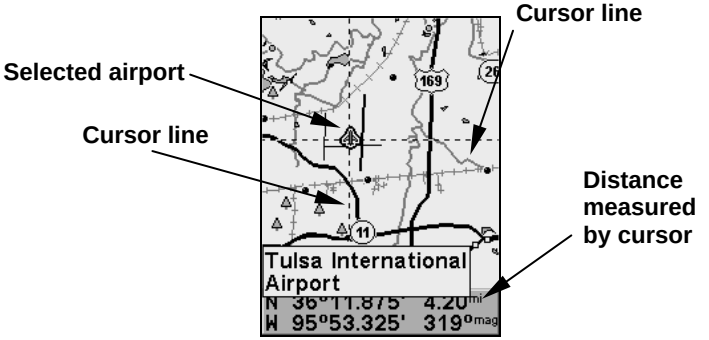
The map is presented from a bird's eye view. The current zoom range shows in the lower left corner of the screen.

1. Press the **ZIN** key (zoom in) to move in closer and see greater detail in a smaller geographic area.

2. Press the **ZOUT** key (zoom out) to move farther away and see less map detail in a larger geographic area.

When you are walking or riding in a vehicle, the map will automatically move as you move. This keeps your current location roughly centered on the screen.

You can scroll the map northward, southward, eastward or westward by using the arrow keys, which will launch the cursor crosshairs. This allows you to look anywhere on the map. To clear the cursor, press **EXIT** and the map will revert to the current or last known position.



The selected airport to the northwest is 4.2 miles away.

Tip:

Use the cursor to determine the distance from your current position (or last known position, when working indoors) to any map object or location. Use the arrow keys to position the cursor over the object or place. The distance, measured in a straight line, appears in the data box at the bottom of the map. Press **EXIT** to clear the cursor.

Selecting Any Map Item with the Cursor

1. Use the zoom keys and the arrow keys to move around the map and find any item you wish to select.

2. Use the arrow keys and center the cursor crosshairs on the desired object. On most items, a pop-up box will give the name of the selected item.

You will also notice a red halo surrounds the item when it is selected. Once that happens and you press **FIND**, the Find Menu will pop up with **SELECTED ITEM** listed at the top of the menu. Press **ENT** to see the Waypoint Information screen for the selected item.

Searching

Now that you've seen how the iFINDER can find where *you* are, let's search for something else. Searching is one of the most powerful features in the Lowrance GPS product line.

In this example, we'll look for the *nearest* fast-food restaurant. For more information on different types of searches, refer to *Sec. 6, Searching*.

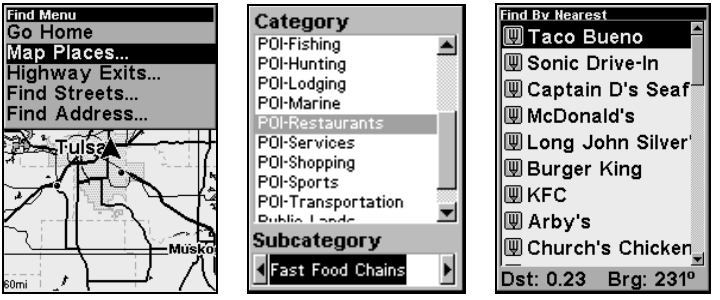
NOTE:

This example requires the Point of Interest (POI) database included with a high-detail MapCreate 6 custom map.

After the iFINDER has acquired a position:

1. Press **FIND** | ↓ to **MAP PLACES** | **ENT** | ↓ to **POI-RESTAURANTS**.

2. You could search the entire restaurant category, but in this example we will narrow our search. Press → to **FAST FOOD CHAINS** | **ENT** | **ENT**.

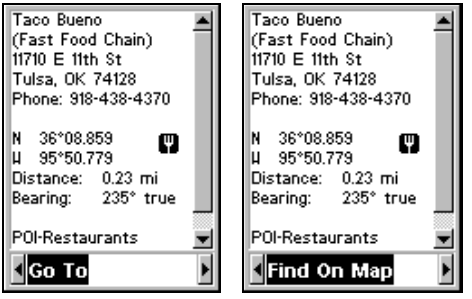


Find Map Places Menu (left); Category Selection menu (center) with list of the nearest restaurants (right).

3. A list of restaurants will appear with the closest at the top of the list and the one furthest from you at the bottom of the list. The nearest is highlighted.

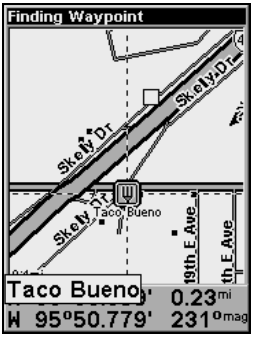
4. If you wanted, you could scroll ↑ or ↓ to select another restaurant, but for now, we will just accept the nearest one. Press **ENT**.

5. The POI's Waypoint Information screen appears. (This is how you can use the iFINDER as a business phone directory!) If you wanted to navigate there, you could press Enter, since the **GO TO** command is highlighted. But we just want to see it on the map, so press → to **FIND ON MAP** | **ENT**.



POI information screen for fast food restaurant nearest this position. Screen shows name, street address, phone number, latitude/longitude, distance to the restaurant and its compass bearing. Screen shows Go To command (left). The Find On Map command is selected (right).

6. The iFINDER's map appears, with the cursor crosshairs highlighting the restaurant's POI symbol. A pop-up name box identifies the POI. A data box at the bottom of the screen displays the location's latitude, longitude, distance and bearing.



Map screen showing Finding Waypoint, the result of a restaurant search.

7. To clear the search and return to the last page displayed, press **EXIT** repeatedly. Before you completely exited out of the Search menus, you could have gone looking for another place.

NOTE:

Search works from mapping and POI data loaded in the unit. If you have not loaded a high-detailed custom map covering the desired search area, you may not find much.

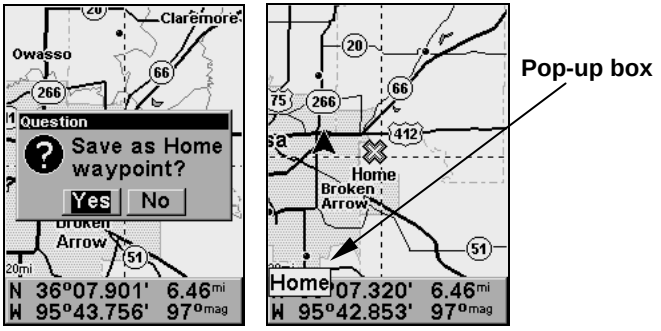
Set Home Waypoint

A waypoint is an electronic address, based on the latitude and longitude of a position on the earth. Easy Mode allows you to save two waypoints (Home and Man Overboard).

To save a Home Waypoint:

1. Press and release **ENT**.

2. A message appears asking if you want to save as home waypoint. Select **YES** and press **ENT**. The waypoint appears on the map as an X, named Home.



Save Home Waypoint menu (left). Home waypoint with X symbol and name (right). When selected by the cursor, the pop-up box appears.

The example shows the home waypoint set at the cursor location. If the cursor was not active, the point would be placed at the current position.

Caution:

Saving a new Home waypoint will overwrite and erase the previous Home waypoint.

Go Home

This command will automatically take you back to the Home waypoint you created.

1. Make sure you have cleared the cursor, then press **FIND | ENT** and follow navigation arrows on the Map Page or the compass rose on the Navigation Page.

To cancel navigation, press **MENU**|↓ to **CANCEL NAVIGATION**|**ENT**|← to **YES**|**ENT**. The iFINDER stops showing navigation information.

Set Man Overboard (MOB) Waypoint

One of boating's most terrifying events is having a friend or family member fall overboard. This unit has a man overboard feature that shows navigation data to the location where the feature was activated. To activate it, press the **ZOUT** and **ZIN** keys at the same time. Your position at the time these keys are pressed is used as the man overboard position.

Caution:

Saving a new Man Overboard waypoint will overwrite and erase the previous Man Overboard waypoint.

Navigate Back to MOB Waypoint

Find your way back to the position with the Navigation Page or Map Page. When MOB is activated, the Navigation Page automatically shows the compass rose with its bearing arrow pointing toward the man overboard position. The destination name says Going To Man Overboard and the Map Page displays a Man Overboard waypoint, represented by a human figure. The steering arrow points where to steer to reach that position.

The man overboard position is stored in the waypoint table for future reference. It can be edited the same as any other waypoint in Advanced Mode. This prevents the inadvertent loss of the current Man Overboard position.

Tip:

You don't need to have an emergency to use the MOB waypoint. In Easy Mode, it is the only way you can set an additional waypoint other than the Home waypoint. When you set the MOB point, cancel navigation and use it like a regular waypoint. (Remember, you can set 1,000 waypoints in Advanced Mode.)

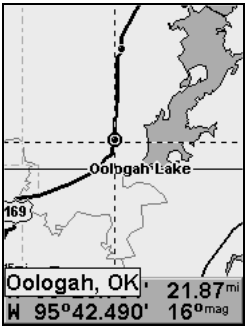
To cancel navigation to MOB, press **MENU**|↓ to **CANCEL NAVIGATION**|**ENT**|← to **YES**|**ENT**. The iFINDER stops showing navigation information.

Navigate to Cursor Position on Map

The **GO TO CURSOR** command navigates to the current cursor position on the map. It's a quick and handy way to navigate to anything you can see on the map display.

1. Use the cursor with the zoom in and zoom out keys to maneuver around the map until you find a location you would like to visit.

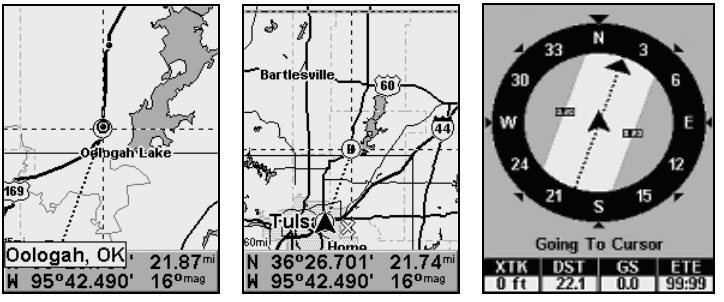
2. Center the cursor over the location to select it. See the example below. Many map items such as waypoints, Points of Interest, towns, etc., can be selected, and appear highlighted with a pop-up box. Other items, like a river or a street intersection will not appear highlighted, but the cursor will take you to those locations just the same.



Navigate to cursor. In this example, the cursor crosshairs are centered on Oologah, Oklahoma.

3. Press **MENU**|**ENT** and the iFINDER will begin navigating to the cursor location.

The Map Page will display a course line from your current position to the cursor position. The Navigation Page displays a compass rose showing navigation information to your destination. See the following examples.



The 15-mile zoom figure (left) shows the course line connecting your current position to your destination. The 60-mile zoom (center) shows both current position and destination on screen. The Navigation Page (right) will also show navigation information.

To stop navigating to the cursor, use the Cancel Navigation command: press **MENU**|↓ to **CANCEL NAVIGATION**|**ENT**|← to **YES**|**ENT**. The iFINDER stops showing navigation information.

Navigate to a Point of Interest

For POIs that are in view on the map, you can use the Navigate to Cursor command above. Use the cursor to select the POI.

Another method involves searching for POIs by pressing the **FIND** key and selecting **MAP PLACES**. (See the searching example earlier in this section, or turn to Sec. 6*, Searching*, for detailed instructions on POI searches.)

After you have selected **MAP PLACES** and pressed **ENT**, a list of map categories will appear. Use ↓ ↑ to highlight a category and press **ENTER**. The **FIND BY MENU** will appear with two options from which to choose: **NAME** and **NEAREST**. Select **NEAREST** and press **ENT**. A list of locations will appear with the one nearest you highlighted at the top. Press **ENT**, then press ← to make sure the **GO TO** command is highlighted at the bottom of the screen. Now press **ENT**. The iFINDER begins showing navigation information to the item.

To cancel navigation, press **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**. The iFINDER stops showing navigation information.

Creating and Saving a Trail

A trail, or plot trail, is a history of the path you have taken. On the screen, trails are represented by a solid line extending from the back of the current position arrow.

With the default auto setting, the iFINDER creates a trail by placing a dot (trail point) on the screen every time you change directions. (The method used for creating a trail and the trail update rate can both be adjusted in Advanced Mode. See Sec. 5 for *Trail Options*.)

In Easy Mode, this unit automatically creates a plot trail when turned on. The trail is saved in memory when the unit is turned off. The iFINDER continues recording the *same* trail until you clear the trail, which *erases* the old trail and starts creation of a new trail.

NOTE:

The iFINDER can record up to 9,999 points per trail, which can be adjusted in Advanced Mode. The default setting is a maximum of 2,000 points. When trail length exceeds the maximum setting, the unit begins recording the trail over itself.

In Advanced Mode, you can save and recall up to 10 different plot trails, which can be copied to your MMC for archiving.

Caution:

You also have the option of turning off trail recording in Advance Mode. If the option is left off when you switch modes, you

will not be able to take advantage of the automatic trail creation feature in Easy Mode.

Displaying a Saved Trail

The trail is automatically displayed in Easy Mode by default. Trail display can be selectively turned off and on only in Advanced Mode.

Navigating or Backtracking a Trail

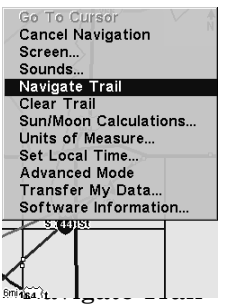
There are two methods for following your back trail. The simplest requires no menu commands at all, but provides no navigation information during the trip. The other requires only three keystrokes and provides a full range of navigation data. Try both methods and see which you prefer. When hiking at walking speed, we often just use visual back trailing because it is better at following each little turn on a footpath. At faster speeds, like on a highway or water, the Navigate Trail command is handy.

Visual Back Trailing

1. On the Map Page, zoom (**ZIN** or **ZOUT**) so your trail is visible.

2. Begin moving and watch the Map. Walk or steer so your current position arrow follows the trail you just made.

Navigate a Back Trail



1. Press **MENU** | ↓ to **NAVIGATE TRAIL** | **ENT**.

2. Now, begin moving and follow your iFINDER.

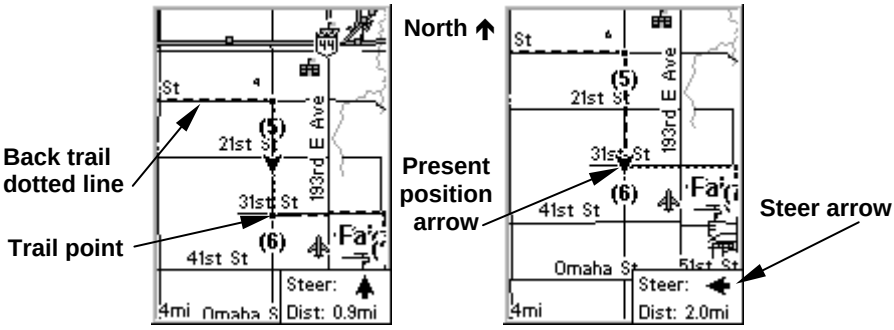
NOTE:

If you are already located at or near the beginning of your back trail, the arrival alarm will go off as soon as you hit Enter. Just press **EXIT** to clear the alarm and proceed.

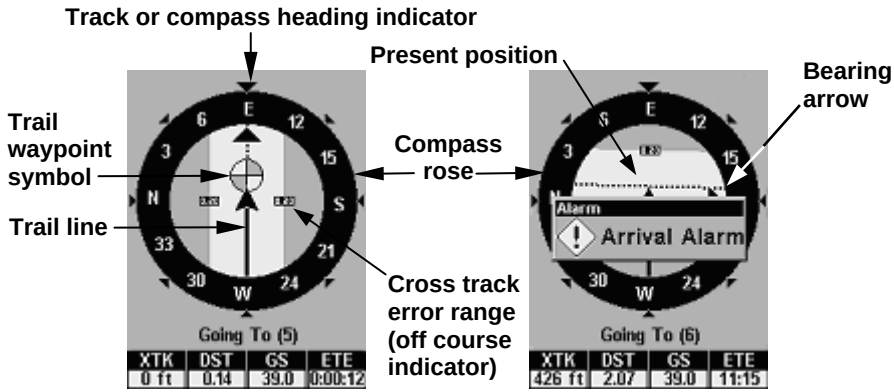
On the map, your original trail is visible as a solid line, along with a roughly parallel dotted line indicating the back trail to follow. The map contains a steer arrow in the lower right corner. This arrow shows you where to steer to reach the next waypoint on your back trail.

The Navigation Page will also show the trail line and a bearing arrow, which points to the next waypoint on the trail.

As you travel, the arrival alarm will go off when you near a waypoint, and the steer arrow (on the map) and bearing arrow (on the compass rose) will swing around and point to the next waypoint on the trail. Press **EXIT** to clear the alarm.



Navigate trail, map views: Driver is southbound heading straight toward trail point 6 (left). The steer arrow tells the driver to go straight. Southbound driver (right) has reached point 6 and must turn east to follow trail. The steer arrow swings around to the left (east), toward the next trail waypoint (arrival alarm message turned off for clarity.)



Navigate trail, navigation page (compass rose) views: Driver is eastbound heading straight toward trail point 5 (left). The bearing arrow shows the trail point is due east (straight ahead.) Driver (right) has reached trail point 5 and must turn south to follow the trail. Arrival alarm goes off and bearing arrow swings around to right (south), toward the next waypoint, trail point 6. The iFINDER now shows navigation information to point 6, which is 2.07 miles away.

3. When you reach your destination, be sure to cancel your navigation: press **MENU**|↓ to **CANCEL NAVIGATION**|**ENT**. The iFINDER asks if you're sure. Press ← |**ENT**.

Clearing or Erasing a Trail

You can erase the current trail and automatically begin recording a new one by using the Clear Trail command.

WARNING:

Clearing a trail will erase the trail from the iFINDER's memory. You will not be able to backtrack the trail, if the it is erased. If you need to preserve the trail, switch to Advanced Mode and use the instructions in Sec. 4 for *Creating and Saving a Trail*.

1. Press **MENU** | ↓ to **CLEAR TRAIL** | **ENT**. The iFINDER asks if you're sure. Press ← | **ENT**. 2. Press **EXIT| EXIT** to get back to the main page display.

Transfer Custom Maps and GPS Data Files

Custom Maps:

Custom maps work only from the MMC card or SD card. When a card containing a Custom Map File is loaded into the unit, the iFINDER automatically loads the map into memory when the unit is turned on.

Instructions for copying Custom Map Files to an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software. For instructions on inserting an MMC into the iFINDER, *see Sec. 2, Installation/Accessories*.

GPS Data Files:

GPS Data files contain waypoints, routes, trails and event marker icons. Instructions for copying GPS Data Files between your computer and an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software.

GPS data automatically recorded in the unit's internal memory must be saved to the MMC (as a GPS Data File) in order to store it on your personal computer. GPS Data Files stored on an MMC must be copied from the card to the iFINDER's internal memory before the unit can read them. Here's how:

1. Insert the MMC into your unit. Press **MENU** | ↓ to **TRANSFER MY DATA** | **ENT** and the screen below appears.

The Transfer My Data submenu asks if you want to save data to the MMC or load data from the MMC into the iFINDER's memory.

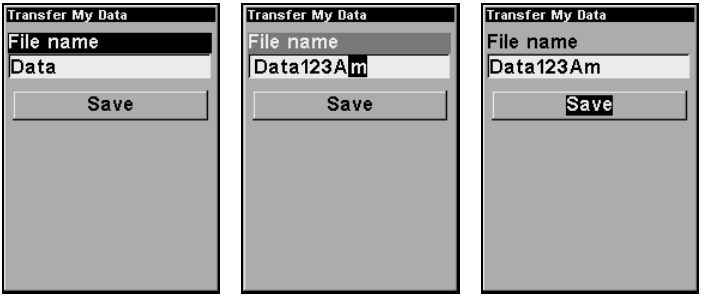
2. The Transfer My Data menu includes a message which tells you if an MMC is present or not. If no MMC is present, you must insert a card into the iFINDER to activate the Load or Save commands.

To transfer data ***from*** **the iFINDER** ***to*** **the MMC**, press **ENT**.

To transfer data ***from*** **the MMC** ***to*** **iFINDER**, press → to **LOAD | ENT**.

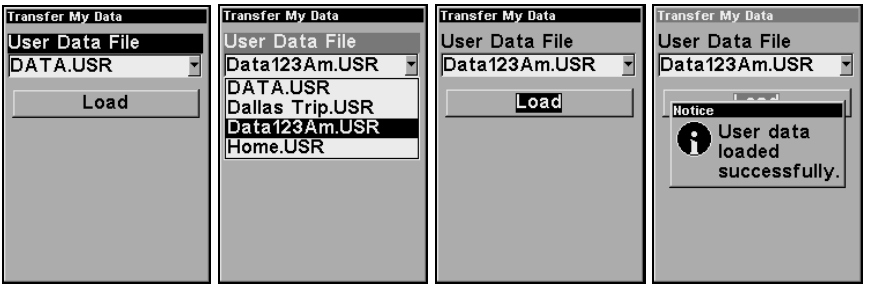
3. **Saving**: To accept the default name Data for the GPS Data File, press ↓ to **SAVE | ENT**. If you wish to rename the file (as in the example below), press **ENT** to activate the selection box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Then, press **ENT | ↓** to **SAVE | ENT**.

The unit will display first a progress then a completion message when the data transfer is finished. To return to the Page view, press **EXIT | EXIT**.



These figures (from left to right) show the menu sequence for naming and saving a GPS Data File from an MMC to the iFINDER's memory.

4. **Loading**: There may be more than one GPS Data File (*.USR) on the card. To select a file, press **ENT** to activate the selection box, use ↓ or ↑ to highlight the file, then press **ENT** to accept the selection. Next, press ↓ to **LOAD | ENT**. The unit will display a completion message when the data transfer is finished. To return to the Page view, press **EXIT | EXIT**.



These figures (left to right) show the menu sequence for loading a GPS Data File from an MMC into the iFINDER's memory.

Switch to Advanced Mode

To leave Easy Mode and switch to Advanced Mode:

1. Press **MENU** | ↓ to **ADVANCED MODE** | **ENT**.
2. The unit asks if you are sure you want to enter Advanced Mode.
3. Press ← | **ENT** and the unit switches to Advanced Mode.

Switch Back to Easy Mode from Advanced Mode

To leave Advanced Mode and switch back to Easy Mode:

1. Press **MENU** | **MENU** | ↓ to **EASY MODE** | **ENT**.
2. The unit asks if you are sure you want to turn on Easy Mode.
3. Press ← | **ENT** and the unit switches to Easy Mode.

Section 4:
Advanced Mode Operation

Keypad

iFINDER H2Oc keypad.

1. **PWR/LIGHT** (Power & Light) – The PWR key turns the unit on and off and activates the backlight.

2. **PAGES** – Pressing this key switches the unit between the four different page screens in Advanced Mode. (Satellite, Position, Navigation and Map.) Each page represents one of the unit's major operation modes.

3. **MENU** – Press this key to show the menus, which allow you to select or adjust a feature from a list.

4. **ARROW KEYS** – These keys are used to navigate through the menus, make menu selections, move the chart cursor and enter data.

5. **ENT/SAVE** (Enter & Save) – This key allows you to save data, accept values or execute menu commands.

6. **EXIT** – The Exit key lets you return to the previous screen, clear data or close a menu.

7. **FIND** – The Find key launches the iFINDER search menus and some navigation functions.

8. **ZOUT** – (Zoom Out) – This key lets you zoom the screen out to see a larger geographic are on the map. Less detail is seen as you zoom out.

9. **ZIN** – (Zoom In) – This key lets you zoom the screen in to see greater detail in a smaller geographic area on the map.

Power/lights on and off

To turn on the unit, press **PWR**. To turn on the backlight, press **PWR** again. Pressing **PWR** once again will turn off the backlight. (Press **EXIT** to clear any message or alarm displays.)

Turn off the unit by pressing and holding the **PWR** key for 3 seconds.

Main Menu

Advanced Mode has a single Main Menu, which contains some function commands and some setup option commands. The instructions in this section will deal only with functions, the basic commands that make the iFINDER do something. The iFINDER will work fine for these instructions right out of the box with the factory default settings. But, if you want to learn about the various options, see *Sec. 5, System Setup and GPS Setup Options*.

1. To get to the main menu from any page: press **MENU**|**MENU**. To clear the menu screen and return to the page display, press **EXIT**.

Main Menu, Advanced Mode.

The Main Menu commands and their functions are:

Screen: changes the contrast or brightness of the display screen and backlight delay.

Sounds: enables or disables the sounds for key strokes and alarms and sets the alarm style.

Transparency: adjusts the level of transparency for menus.

Alarms: changes alarm thresholds and allows users to turn on or off GPS alarms.

Route Planning: allows you to plan, view or navigate routes.

My Trails command: used to show, create, edit or delete trails.

Cancel Navigation: turns off the navigation command after you have reached your destination.

GPS Setup: gives access to GPS receiver options, like GPS Simulator, Track Smoothing and GPS Auto Search.

System Setup: give access to general configuration options like, Units of Measure, Set Local Time, Reset Options, Popup Help and Transfer My Data.

Utilities: allows users to modify settings for Sun/Moon calculator, Trip Calculator, Timers and Alarm Clock.

Easy Mode: used to switch from Advanced Mode to Easy Mode. Easy Mode shows only the most commonly used features to simplify the interface and operation.

Browse MMC Files: load from or save to an MMC card GPS Data Files containing waypoints, routes, trails and event marker icons.

Pages

Advanced Mode has four Page displays that represent the four major operating modes. They are the Satellite Status Page, Digital Data page, Navigation Page and Map Page. The pages are accessed by pressing the **PAGES** key. Pressing **PAGES** repeatedly scrolls through the four screens in an endless loop.

Each Page has a submenu screen associated with it. You access a Page Submenu by pressing the **MENU** key while the page is displayed. (Pressing the Menu key twice will always take you to the Main Menu.)

NOTE:

In Advanced Mode, you can remove the pages you do not want to have in the Pages rotation. Press **MENU | MENU**, then scroll down to **SYSTEM SETUP** and press **ENT**. Press ↓ to **CHOOSE VIEWABLE PAGES** and press **ENT**. Use the ↓ ↑ keys to select desired pages, then press **ENT** to turn them on (check) or turn them off (uncheck).

Satellite Status Page

This page provides detailed information on the status of the iFINDER's satellite lock-on and position acquisition. No matter what page you are on, a flashing current position indicator/question mark symbol and flashing GPS data displays indicate that satellite lock has been lost and there is no position confirmed. This page shows the quality and accuracy of the current satellite lock-on and position calculation.

WARNING:

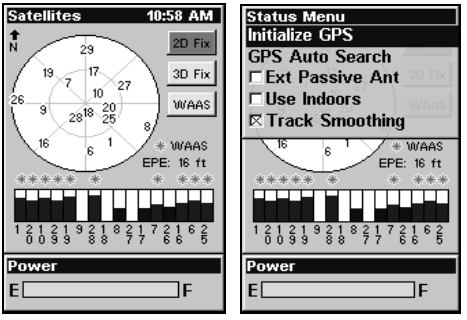
Do not begin navigating with this unit until the numbers have stopped flashing!

NOTE:

Refer to Sec. 2, *Easy Mode Operation*, for further explanation and more illustrations of the Satellite Page.

1. To get to the Satellite Status Page press **PAGES** repeatedly until it appears on the screen.

2. To get to Satellite Status Menu press **MENU** when the Satellite Status page is displayed on the screen.



Satellite Status Page (left) with Satellite Status Menu (right).

Status Menu

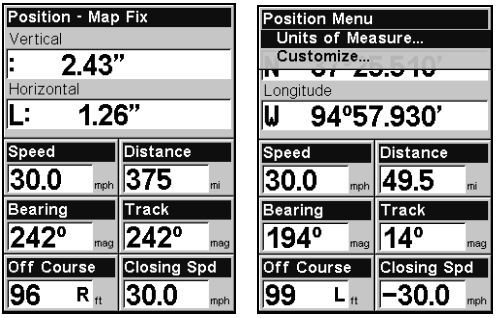
The Satellite Status Menu allows you to set your own GPS options such as track smoothing, and whether you want the GPS engine to stop searching (a power-saving function for use indoors).

Digital Data Page

This page provides detailed information on the position of the iFINDER's cursor. From this page, you can determine your latitude, longitude, altitude, travel time, speed and other useful information about your position and trip.

1. To get to the Digital Data Page press **PAGES** repeatedly until it appears on the screen.

2. To get to Digital Data Page menu press **MENU** when the Digital Data page is on the main display.



Digital Data page (left) with the Digital Data Menu (right).

Digital Data Menu

The Digital Data Menu allows you to change units of measure and to customize the digital data boxes with the data most important to you.

Navigation Page

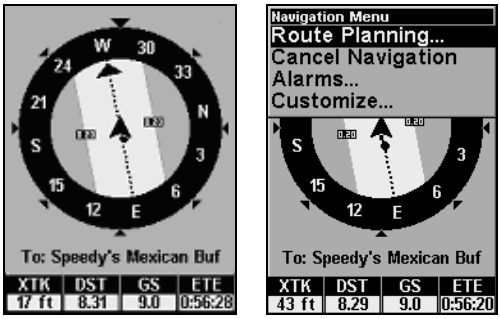
This screen has a compass rose that not only shows your direction of travel, but also the direction to a recalled waypoint. The navigation screen looks like the one below when you're navigating to a waypoint. Your position is shown by an arrow in the center of the screen and your trail history — the path you've taken — is depicted by the line extending from the arrow. The large arrow pointing down at the top of the compass rose indicates the current track (direction of travel) you are taking.

NOTE:

Refer to Sec. 2, *Easy Mode Operation*, for further explanation and more illustrations of the Navigation Page.

1. To get to Navigation Page press **PAGE** repeatedly until it appears on the screen.

2. To get to Navigation Page menu, press **MENU**, while the Navigation Page is on the main display.



Navigation Page (left) with Navigation Menu (right).

Navigation Menu

The Navigation Menu allows you to cancel navigation, set alarms and plan and edit routes.

Map Page

The map screens your course and track from a bird's-eye view. By default, this unit shows the map with north always at the top of the screen. (This can be changed. See the topic *Map Orientation*, in Sec. 5.) If you're navigating to a waypoint, the map shows your starting location, present position, course line and destination. You, however, don't have to navigate to a waypoint to use the map.

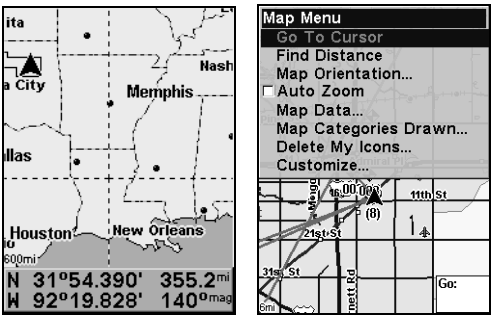
The Zoom In and Zoom Out keys zoom the map to enlarge or reduce its coverage area and the amount of mapping detail shown. There are 40 available map zoom ranges, from 0.02 miles to 4,000 miles.

NOTE:

Refer to Sec. 3, *Easy Mode Operation*, for further explanation and more illustrations of the Map Page.

1. The Map page is displayed by default when the iFINDER is turned on. To switch from the Map Page to another page, press **PAGES** repeatedly until the desired page appears on the screen.

2. To get to Map Page Menu, press **MENU**, when the Map Page is on the main display.



Map Page (left) with Map Menu (right).

Map Menu

The map menu offers a variety of options, which include, finding distances, changing the orientation of the map and viewing and modifying map data.

Moving Around the Map: Zoom & Cursor Arrow Keys

The map is presented from a bird's-eye view. The current zoom range shows in the lower left corner of the screen. If the zoom range says "4 mi," then the map — from the left edge of the screen to the right edge of the screen — covers four miles.

1. Press the **ZIN** key (zoom in) to move in closer and see greater detail in a smaller geographic area.

2. Press the **ZOUT** key (zoom out) to move farther away and see less map detail in a larger geographic area.

You can pan or scroll the map northward, southward, eastward or westward by using the arrow keys, which will launch the cursor crosshairs. To clear the cursor, press **EXIT** and the map will be switched back to the current or last known position.

Find Distance to Another Location

1. While on the Map page press **MENU** | ↓ to **FIND DISTANCE** | **ENT**.

2. Center the cursor over the position you want to find the distance to. A rubber band line appears, connecting your current position to the cursor's location. The distance along that line will appear in the lower right-hand corner of the screen.

3. Press **EXIT** | **EXIT** to return to regular operation.

The distance to Dallas from the starting point is 211.1 miles.

Find Distance from Point to Point

You can also measure distance between two other points on the map.

1. While on the Map page press **MENU** | ↓ to **FIND DISTANCE** | **ENT**.

2. Center your cursor over the first position. (A rubber band line appears, connecting your *current* position to the cursor's location.) Press **ENT** to set the first point and the rubber band line disappears.

3. Move the cursor to the second position. The rubber band line reappears, connecting the first point you set to the cursor. The distance along that line will appear in the lower right-hand corner of the screen.

4. Press **EXIT** to clear the command and return to the page screen.

Find Your Current Position

Finding your current position is as simple as turning on the iFINDER. Under clear sky conditions, the unit automatically searches for satellites and calculates its position in approximately one minute or less.

NOTE:

Clear sky means open sky, unobstructed by terrain, dense foliage or structures. Clouds do not restrict GPS signal reception.

If for some reason satellite acquisition takes longer, you may be inside a structure or vehicle or in terrain that is blocking signal reception. To correct this, be sure you are positioned so the unit has as clear a view of the sky as possible, then turn the unit off and back on again.

If the cursor is activated, any information the unit gives you will be based on the cursor position, not your own. If you want to find where you are, just press **EXIT** until the cursor goes away and the map snaps back to your position.

Icons

Icons are graphic symbols used to mark some location, personal point of interest or event. They can be placed on the map screen, saved and recalled later for navigation purposes. These are sometimes referred to as event marker icons. The iFINDER has 42 different symbols to choose from when creating an icon.

Icons are similar to waypoints, but they do not store as much information (like names) as waypoints do. You can't use a menu to navigate to icons as you can with waypoints.(But, you *can* use the map cursor and navigate to any icon on the map.)

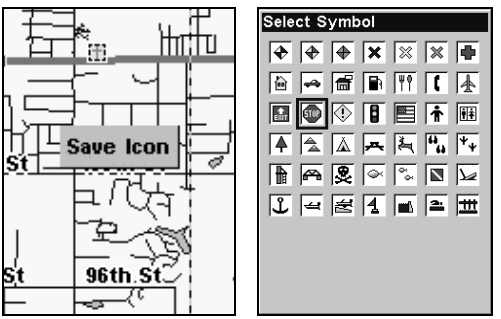
You can create an icon at the cursor position on the map or at your current position while you are navigating.

Create Icon on Map

1. Use the arrow keys to move the cursor to the place where you want to make an icon.

2. Press and *hold* **ENT** until the screen displays Save Icon, then *release* the **ENT** key. The Select Symbol menu will appear.

3. Press ← or ↑ or → or ↓ to select your icon symbol, then press **ENT**. The icon appears on the map.



Save icon menu (left) with Select symbol menu (right).

Create Icon at Current Position

1. While you are traveling, press and *hold* **ENT** until the screen shows a Save Icon menu, then *release* the **ENT** key.

3. Press ← or ↑ or → or ↓ to select your icon symbol, then press **ENT**. The icon appears on the map.

Delete an Icon

To delete an icon, you must be in Advanced Mode. You can delete all the icons at one time, delete all icons represented by a particular symbol or use the cursor to delete an icon selected from the map.

1. Press **MENU** | ↓ to **DELETE MY ICONS** | **ENT**.

2. Press ↓ to **DELETE ALL ICONS**, **DELETE BY SYMBOL** or **DELETE FROM MAP** and press **ENT**.

Delete icons menu.

Load GPS Data Files from an MMC

GPS Data files, containing waypoints, routes, trails and event marker icons, must be copied from an MMC to the iFINDER's internal memory before the iFINDER can read them. Here's how:

1. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **TRANSFER MY DATA** | **ENT** and the screen below appears.

The Transfer My Data menu asks if you want to save data to the MMC or load data from the MMC into the iFINDER's memory.

2. The Transfer My Data menu includes a message which tells you if a MMC is present or not. If no MMC is present, you must insert a card into the iFINDER to activate the **LOAD** or **SAVE** commands.

To load data from the MMC to the iFINDER, press → to **LOAD** | **ENT**.

3. **Loading**: There may be more than one GPS Data File (*.USR) on the card. To select a file, press **ENT** to activate the selection box, use ↓ or ↑ to highlight the file, then press **ENT** to accept the selection. Next, press ↓ to

LOAD | **ENT**. The unit will display a completion message when the data transfer is finished. To return to the page view, press **EXIT** | **EXIT** | **EXIT**.

Navigate

Navigation is one of the primary reasons GPS users choose the iFINDER. The unit gives you useful trip information about where you want to go, how to get there and how long it will be before you arrive.

Navigate Back Home

You can navigate to the Home waypoint created in Easy Mode, but you must use Advanced Mode's procedure for navigating to a waypoint. See the entry later in this section on *Navigate to a Waypoint*.

Navigate Back to Man Overboard Waypoint

This unit has a man overboard feature that shows navigation data to the location where the feature was activated. To activate it, press the **ZOUT** and **ZIN** keys at the same time. Your position at the time these keys are pressed is used as the man overboard position. The unit automatically begins navigating to the MOB waypoint. For more details, see this subject in Sec. 3, *Easy Mode Operation*.

Cancel Navigation

In Easy Mode:

Press **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

In Advanced Mode

Press **MENU** | **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

Navigate a Route

1. From the **NAVIGATION PAGE**, press **MENU** | **ENT** or from the **MAP PAGE**, press **MENU** | **MENU** | ↓ to **ROUTE PLANNING** | **ENT**.

2. Press ↓ to select *route name* | **ENT** | **ENT**.

3. Upon arrival at your destination, cancel navigation:
press **MENU** | **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

Navigate to Cursor Position on Map

1. Use arrow keys to center cursor crosshairs over the map object or location.

2. To navigate to the selected location, press **MENU** | **ENT** | **EXIT**. Follow steering arrow on Map Page or compass bearing arrow on Navigation Page.

Navigate to an Icon

Use the Navigate to Cursor command above and use the cursor to select the icon.

Navigate to Point of Interest (POI)

For POIs that are in view on the map, you can easily use the Navigate to Cursor command above. Use the cursor to select the POI. The other

method involves searching for POIs with the Find command. (see Sec. 6, *Searching*, for detailed instructions on POI searches.)

Whenever you locate a POI, the Point of Interest information screen appears (with phone number, position, etc.) and the **GO TO** command is automatically highlighted in the command box. To navigate to that POI, press **ENT** and the iFINDER begins displaying navigation information to that location.

Navigate to a Waypoint

You can select any waypoint visible on the Map Page with the cursor, then use the Navigate to Cursor command. You, however, can avoid scrolling the map to pick your waypoint if you use the Find commands:

1. Press **FIND** | ↓ | to **MY WAYPOINTS** and press **ENT**. To look up the nearest waypoint, press **ENT**, or to look by name (scroll through the entire waypoint list), press ↓ | **ENT**. For this example, let's look by name.

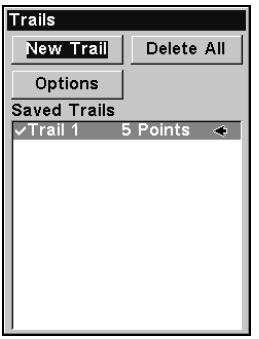
2. If your waypoint list is a long one, you can search for a waypoint by spelling it out its name in the **FIND BY NAME** box. (Press ↑ or ↓ to change the first character, then press → to move the cursor to the next character and repeat until the name is correct, then press **ENT** to jump to the list below.)

3. If you don't want to spell out the name, you can jump directly to the **FIND IN LIST** box by pressing **ENT**. Use ↑ or ↓ to select the waypoint name, press **ENT** and the waypoint information screen appears with the **GO TO** command selected.

4. To begin navigating to the waypoint, press **ENT**.

Navigate a Trail

1. Press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT** and the following screen appears.



Trails Menu, Advanced Mode.

2. Press ↓ to saved trail list, then use ↓ or ↑ to select a trail to navigate.

3. With the trail name highlighted, press **ENT** | ↓ → to **NAVIGATE** | **ENT**.

4. Wait while the iFINDER creates a route from the trail.

When the progress message disappears, the unit displays a trail information screen, with **NAVIGATE** highlighted in the top command box.

Tip: Back Track a Trail

Running the Navigate command will lead you along the trail from its starting point to its ending point. You can also *back track* a trail, following it in *reverse* order (from its ending point to its starting point.) In Easy Mode, this is done automatically with the most recently created active trail. In Advanced Mode you must first select the Reverse command to reverse the trail point order before you start navigating: press → to **REVERSE ROUTE** | **ENT** | ← to **NAVIGATE**.

5. To follow the trail, press **ENT**. The unit begins showing navigation data along the trail. Follow the steering arrow on the Map Page or the compass bearing arrow on the Navigation Page.

NOTE:

If you are at or near the start of the trail, the arrival alarm will go off as soon as navigation begins because of your proximity to the trail's first point. Just press **EXIT** to clear the alarm.

6. Upon arrival at your destination, cancel navigation:
press **MENU** | **MENU** | ↓ to **CANCEL NAVIGATION** | **ENT** | ← to **YES** | **ENT**.

Routes

A route is a series of waypoints linked together in an ordered sequence, used to mark a course of travel. You can visualize a route as a string of beads. The beads represent waypoints and the string represents the course of travel connecting waypoint to waypoint.

The course from one waypoint to the next is a leg. Routes are composed of one or more legs. The legs of all GPS routes are based on straight lines between waypoints.

A route provides the automatic capability to navigate through several waypoints without having to reprogram the unit after arriving at each waypoint. Once programmed into the GPS unit, a route gives you the option of navigating forward through the route waypoints or in reverse order. You can even begin navigating in the middle of a route!.

Create and Save a Route

In the iFINDER, routes can be created, edited and navigated only in Advanced Mode. You have the option of creating a route in the unit or on your computer, if you have purchased our MapCreate 6 software.

PC-created Routes

MapCreate is the easiest method for preparing a route, because your PC's larger screen, keyboard and mouse are easier to manipulate than the pocket-sized iFINDER.

To load a MapCreate route into the iFINDER, follow instructions in MapCreate's manual for creating a route and saving it as part of a GPS Data File (file format *.usr). Copy the GPS Data File to an MMC and insert the MMC into the iFINDER. (See Sec. 2 for instructions on installing MMCs. To load the GPS Data File into the iFINDER's memory, see the entry on *Transferring GPS Data Files between the iFINDER and a Computer* in this section.)

Routes Created in the iFINDER

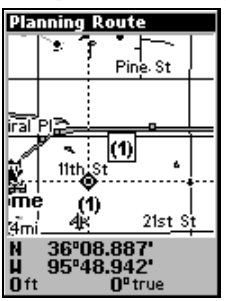
You can create a route by selecting existing waypoints from the waypoint list or you can set a series of route waypoints on the map with cursor arrows and the Enter key. In this example, we'll create a route from the map.

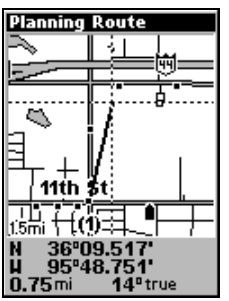
1. From the **NAVIGATION PAGE**, press **MENU | ENT** or from the **MAP PAGE**, press **MENU | MENU | ↓** to **ROUTE PLANNING | ENT**.

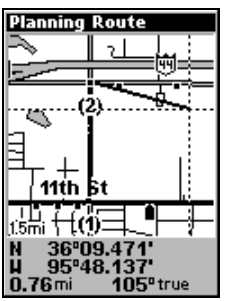
2. With **NEW ROUTE** highlighted, press **ENT | ↓** to **(ROUTE END) | ENT | ↓** to **ADD FROM MAP | ENT**. The Map Page appears with the cursor showing.

3. Use the Zoom and arrow keys to move the map and cursor until the cursor is centered on the spot where you want your route to begin. (If you are starting at your current position or the current cursor position, you are already at the starting spot.)

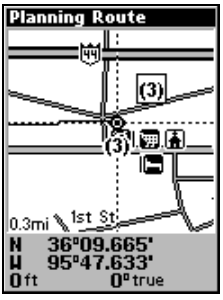
4. Set the first route waypoint by pressing **ENT**. In this example, we moved to the intersection of 11th Street and 145th E. Ave. to start our route to a public hunting area next to a river.

1.


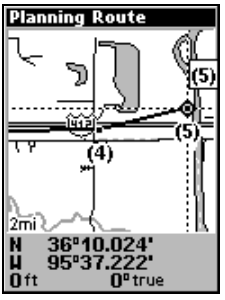
2.


3.


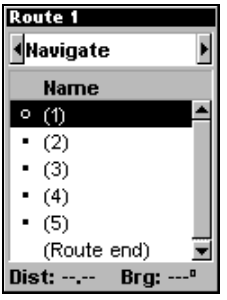
Route creation sequence: (from left) Fig. 1. Set route waypoint (1) at 11th St. & 145th Ave. Fig. 2. Zoom in; move cursor north to set point (2) at 145th & Admiral. Fig. 3. With point (2) set, move cursor east to mark interstate on-ramp with waypoint (3). In figures 2 and 3, notice the rubber band line extending from the previously set waypoint to the cursor. This line will become the course for the route.



4.



5.



6.

Route creation sequence, continued: Fig. 4. Point (3) set at on-ramp turn. Fig. 5. Waypoint (4) set at highway exit to frontage road leading to river. Waypoint (5) ends the route at a tree stand in the hunting area. Fig. 6. Press EXIT to save the route and you return to this screen.

5. Move the cursor to the next point in the route, a spot where you need to turn or change direction, and press **ENT** to set the next waypoint.

6. Repeat step five until the route reaches your destination.

7. To save your route, press **EXIT**. The iFINDER reverts to the Route screen, with the route automatically named Route 1 and stored in the iFINDER's internal memory.

8. You can edit the name if you wish. Press ↑ to select the screen's command box, then press → to **EDIT ROUTE NAME | ENT**. Press ↑ or ↓ to change the first character, then press → to move the cursor to the next character and repeat until the name is correct, then press **ENT**.

9. With the command box active, you also can execute other route commands, like **NAVIGATE**. Press → to highlight a different command, then press **ENT**.

10. If you are finished with the route, you can return to the main page display by pressing **EXIT** repeatedly.

Delete a Route

1. From the **NAVIGATION PAGE**, press **MENU | ENT** or from the **MAP PAGE** press **MENU | MENU | ↓** to **ROUTE PLANNING | ENT**.

2. Press ↓ to the route list | press ↓ or ↑ to select *route name* | **ENT**.

3. Press ← to **DELETE ROUTE | ENT | ←** to **YES | ENT**.

Save GPS Data Files to an MMC

1. Press **MENU | MENU | ↓** to **SYSTEM SETUP | ENT | ↓** to **TRANSFER MY DATA | ENT**.

2. The Transfer My Data menu includes a message which tells you if an MMC is present. If no MMC is present, you must insert a card into the iFINDER in order to activate the Save command.

3. To save data *from* the iFINDER *to* the MMC, press **ENT** (for **SAVE**).

4. To accept the default name Data for the GPS Data File, press ↓ to **SAVE | ENT**. If you wish to rename the file, press **ENT** to activate the selection box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Then press **ENT | ↓** to **SAVE | ENT**.

The unit will display a completion message when the data transfer is finished. To return to the main page display, press **EXIT** repeatedly.

Searching

In this example, we'll look for the *nearest* hotel or motel. For more information on different types of searches, refer to *Sec. 6, Searching*.

NOTE:

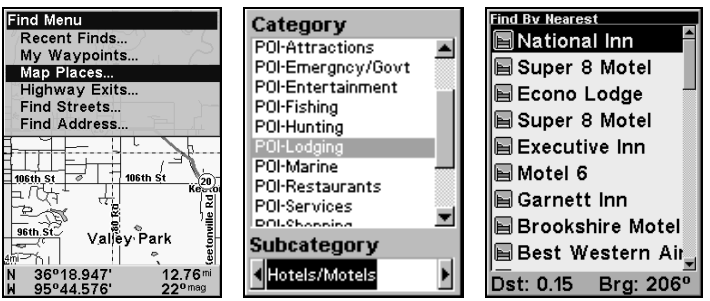
This example requires the Point of Interest (POI) database included with MapCreate 6.

After the iFINDER has acquired a position:

1. Press **FIND | ↓** to **MAP PLACES | ENT | ↓** to **POI-LODGING**.

2. You could search the entire lodging category, but in this example we will narrow our search. Press → to **HOTELS/MOTELS | ENT | ENT**.

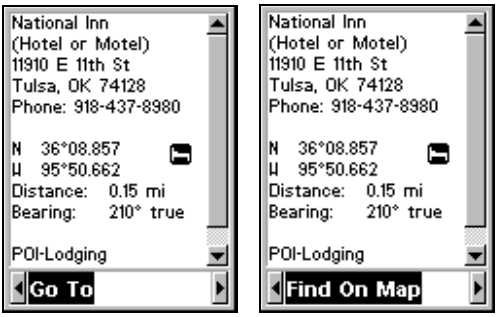
3. The iFINDER says it is calculating, then a list of hotels and motels appears, with the closest location at the top of the list and the location furthest from you at the bottom of the list. The nearest is highlighted.



Find Map Places Menu (left); Category Selection menu (center) and list of the nearest motels (right).

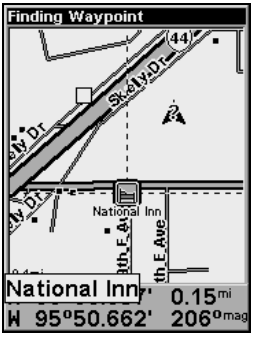
4. If you wanted, you could scroll ↑ or ↓ here to select another motel or hotel, but for now we will just accept the nearest one. Press **ENT**.

5. The POI information screen appears. (This is how you can use the iFINDER as a business phone directory!) If you wanted to navigate there, you could press Enter, since the **GO TO** command is highlighted. We just want to see it on the map, so press → to **FIND ON MAP | ENT**.



POI information screen on fast food restaurant nearest this position. Screen shows name, street address, phone number, latitude/longitude, distance to the restaurant and its compass bearing. Go To command is highlighted (left). Find On Map command is highlighted (right).

6. The iFINDER's map appears, with the cursor crosshairs centered on the restaurant's POI symbol. A pop-up name box identifies the POI. A data box at the bottom of the screen continues to display the location's latitude, longitude, distance and bearing.



Map screen showing Finding Waypoint the result of a lodging search.

7. To clear the search and return to return to the current or last known position, press **EXIT** repeatedly. (Before you exited out of the Search menus, you could have gone looking for another place.)

Trails

A trail, or plot trail, is a string of position points plotted by the iFINDER as you travel. It's a travel history, a record of the path you have taken. Trails are useful for repeating a journey along the same track. They are particularly handy when you are trying to retrace your trip and go back the way you came.

Easy Mode only allows you to work with one trail. Advanced Mode lets you save up to 10 trails in the iFINDER's memory. Since you can copy these trails to MMCs in the form of GPS Data Files (*.usr format), the only true limit on the number of trails you can record is the number of MMCs you can carry in your pockets.
(For various trail options, see the *Trail Options* entry in Sec. 5.)

Create and Save a Trail
The iFINDER is set at the factory to automatically create and record a trail while the unit is turned on. It will continue recording the trail until the length reaches the maximum trail point setting (default is 2,000, but the unit can record trails 9,999 points long). When the point limit is reached, the iFINDER begins recording the trail over itself.

To preserve a trail from point A to point B, you must turn off the trail by making it inactive before heading to point C or even back to point A. When a trail is set inactive, the iFINDER automatically creates and begins recording a new trail.

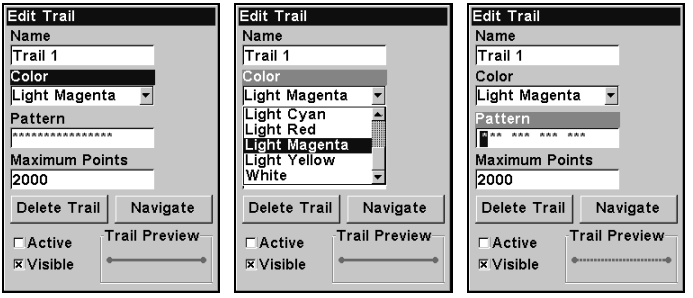
Clear a Trail
In Easy Mode, this command is used to erase the active trail and immediately begin recording a new one. It's available only in Easy Mode.

1. Press **MENU** | ↓ to **CLEAR TRAIL** | **ENT** | ← to **YES** | **ENT**.

Delete a Trail
This is the command that allows you to delete a trail in Advanced Mode:
Press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT** | ↓ to *trail name* | **ENT** | ↓ to **DELETE TRAIL** | **ENT** | ← to **YES** | **ENT**.

Edit a Trail Name
To edit a trail name, press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT** | ↓ to *trail name* | **ENT** | **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Press **EXIT** repeatedly to return to the main page display.

Edit a Trail Color
To edit a trail color, press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT** | ↓ to *trail name* | **ENT**. Press ↓ **TO COLOR** and press **ENT**. Use the ↑ ↓ keys to select the desired color and press **ENT**. Press **EXIT** repeatedly to return to the main page display.



Color highlighted on the Edit Trail menu (left); Scrolling through color options (center); Customizing the trail pattern (right).

Edit a Trail Pattern

To edit a trail name, press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT** | ↓ to *trail name* | **ENT**. Press ↓ to **PATTERN** and press **ENT**. By default, the pattern will consist of a series of asterisks. To erase or add an asterisk to the series, use the ↑ ↓ keys. To move over to the next asterisk in a series, press the → key. When you are satisfied with the new pattern, press **ENT**. Press **EXIT** repeatedly to return to the main page display.

Transfer Custom Maps and GPS Data Files

Custom Maps:

Custom maps work only from the MMC or SD card. When a card containing a Custom Map File is loaded into the unit, it automatically loads the map into memory when the unit is turned on.

Instructions for copying Custom Map Files to an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software. For instructions on inserting an MMC into the iFINDER, *see Sec. 2, Installation/Accessories*.

GPS Data files:

GPS Data Files contain waypoints, routes, trails and event marker icons. Instructions for copying GPS Data Files between your computer and an MMC are contained in the instruction manual for your MMC card reader and MapCreate 6 software.

GPS data automatically recorded in the unit's internal memory must be saved to the MMC (as a GPS Data File) in order to store it on your personal computer. GPS Data Files stored on an MMC must be copied from the card to the iFINDER's internal memory before the unit can read them. Here's how:

1. Insert the MMC into your unit. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **TRANSFER MY DATA** | **ENT**.

2. The Transfer My Data menu includes a message which tells you if an MMC is present or not. If no MMC is present, you must insert a card into the iFINDER to activate the Load or Save commands.

To transfer data ***from* the iFINDER *to* the MMC**, press **ENT** (for **SAVE**.)

To transfer data ***from* the MMC *to* the iFINDER**, press → to **LOAD** | **ENT**.

3. **Saving to MMC**: To accept the default name Data for the GPS Data File, press ↓ to **SAVE DATA** | **ENT**. If you wish to rename the file, press **ENT** to activate the selection box. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the name is correct. Then, press **ENT** | ↓ to **SAVE DATA** | **ENT**.

The unit will display a completion message when the data transfer is finished. To return to the Page view, repeatedly press **EXIT**.

4. **Loading to unit memory**: There may be more than one GPS Data File (*.USR) on the card. To select a file, press **ENT** to activate the selection box, use ↓ or ↑ to highlight the file, then press **ENT** to accept the selection. Next, press ↓ to **LOAD** | **ENT**. The unit will display a completion message when the data transfer is finished. To return to the Page view, press **EXIT** repeatedly.

Utilities

Utilities are useful tools for traveling or for outdoor activities.

Sun/Moon Rise & Set Calculator

To get to the Sun/Moon menu, press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | **ENT**.

Trip Calculator

To get to the Calculator menu, press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **TRIP CALCULATOR** | **ENT**.

Alarm Clock

To get to the alarm clock menu press MENU | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **ALARM CLOCK** | **ENT.**

Trip Down Timer

To get to the Down Timer menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **DOWN TIMER** | **ENT**.

Trip Up Timer

To get to the Up Timer menu: press **MENU** | **MENU** | ↓ to **UTILITIES** | **ENT** | ↓ to **UP TIMER** | **ENT**.

Waypoints

A waypoint is an electronic address, based on the latitude and longitude of a position on the earth. It represents a location, spot, or destination that can be stored in memory, then recalled and used later for navigation purposes. You can create a waypoint at the cursor position on the map or at your current position while you are navigating.

Create a Waypoint

These techniques use the Quick Save method, the fastest and easiest way to create a waypoint.

Create Waypoint on Map

1. Use the arrow keys to move the cursor to a place where you want to make a waypoint.

2. Press **ENT**|**ENT**. The waypoint is saved and automatically given a name with a sequential number, like waypoint 001. The waypoint symbol and number appear on the map.

Create Waypoint at Current Position

1. While you are traveling, press **ENT**|**ENT**. The waypoint is saved and automatically given a name with a sequential number, like waypoint 002. The waypoint symbol and number appear on the map.

Create a Man Overboard Waypoint

This unit has a man overboard feature that shows navigation data to the location where the feature was activated. To activate it, press the **ZOUT** and **ZIN** keys at the same time. Your position at the time these keys are pressed is used as the man overboard position. The unit automatically begins navigating to the MOB waypoint. For more details, see the Man Overboard entry in the Easy Mode Operation section.

Create a Waypoint by Average Position

This feature sets a waypoint at the current position after taking several position readings and averaging them. It boosts waypoint position accuracy by helping to eliminate errors caused by atmospheric conditions and other factors.

1. Press **ENT**|↓ to **AVERAGE POSITION**|**ENT** (**CREATE** is highlighted)|**ENT**.

2. Wait while the unit takes points to average for the position. (The greater the number of points, the greater the accuracy.) When the desired number of points accumulates, press **ENT** to create and save a waypoint.

3. The Waypoint information window appear. Go To will be highlighted at the bottom of the window. But, if you want to edit the waypoint name, use the ← → keys to bring up **EDIT NAME** and press **ENT**. When you are satisfied with the entry, press **EXIT**|**EXIT** to save the waypoint.

Create a Waypoint by Projecting a Position

This feature sets a waypoint at a point located a specific distance and bearing from a reference position. The reference position can be a highway exit, a map place or an item from your waypoints list.

1. Press **ENT** | ↓ to **PROJECTED POSITION** | **ENT** | (cursor jumps to highlight **CREATE**) | **ENT**.

2. Press ↓ to **CHOOSE REFERENCE** | **ENT**. Use ↑ and ↓ to select a waypoint, map place or highway exit and press **ENT**. After choosing a category, its internal menu will pop up. Select a reference point from the internal menu and press **ENT**. Its position will appear as the reference position on the map.

3. Press ↑ to **DISTANCE** | **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the distance is correct. Press **ENT**.

4. Press ↑ to **BEARING** | **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the bearing is correct. Press **ENT**.

5. Press ↑ to **PROJECT** | **ENT**. The Edit Waypoint menu appears. You can save the new projected waypoint by pressing **EXIT** | **EXIT** or you can edit the waypoint. (Press **EXIT** | **ENT** if you want to immediately begin navigating to the new waypoint.)

Select a Waypoint

To select a waypoint on the map (for navigating or editing, etc.) use the arrow keys, centering the cursor over the waypoint. A red border will appear around the waypoint.

Delete a Waypoint

To delete a waypoint, press **FIND** | ↓ to **MY WAYPOINTS** | **ENT**. Press **ENT** | ↓ to *waypoint name* | **ENT** | → to **DELETE WAYPOINT** | **ENT** | ← to **YES** | **ENT**. To return to the main page display, press **EXIT** repeatedly.

Edit a Waypoint

Waypoint Name

To edit a waypoint name, press **FIND** ↓ to **MY WAYPOINTS** | **ENT**. Press **ENT** | ↓ to desired *waypoint name* | **ENT** | → to **EDIT NAME** | **ENT**. Use the ↑ and ↓ keys to select the first character, then press → to move to the second character and so on. To return to the main page display, press **EXIT** repeatedly.

Waypoint Symbol

To edit waypoint symbol, press **FIND** | ↓ to **MY WAYPOINTS** | **ENT**. Press **ENT** | ↓ to desired *waypoint name* | **ENT** | → to **EDIT SYMBOL** | **ENT**. After the

Select Symbol menu appears, use the arrow keys to select the desired symbol and press **ENT**. To return to the main page display, press **EXIT** repeatedly.

Waypoint Position

To edit waypoint position, press **FIND** | ↓ to **MY WAYPOINTS** | **ENT**. Press **ENT**. Use ↓ and ↑ to select a *waypoint name* | **ENT** | → to **EDIT POSITION** | **ENT**.

1. Latitude: press ↓ to **LATITUDE**, then press **ENT**. Use ↑ or ↓ to change the first character, then press → to the next character and repeat until the latitude is correct. Press **EXIT**.

2. Longitude: press ↓ to **LONGITUDE** | **ENT**, then press ↑ or ↓ to change the first character, then press → to the next character and repeat until the latitude is correct. Press **EXIT**.

3. When latitude and longitude are correct, return to the previous page, press **EXIT** repeatedly.

Waypoint Altitude

To edit waypoint altitude, press **FIND** | ↓ to **MY WAYPOINTS** | **ENT**. Press **ENT**. Use ↓ and ↑ to select a *waypoint name* | **ENT** | → to **EDIT ALTITUDE** | **ENT**.

1. Use ↑ or ↓ to change the first character, then press → to the next character and repeat until altitude is correct.

2. To return to the main page display, press **EXIT** repeatedly.

Notes

Section 5:
System & GPS Setup Options

Alarms

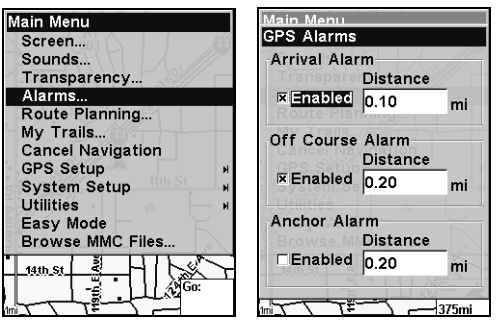
This unit has several GPS alarms. The factory default setting has all alarms turned on, but you can turn alarms off and on and change their distance settings.

You can set an arrival alarm to flash a warning message and sound a tone when you cross a preset distance from a waypoint. For example, if you have the arrival alarm set to 0.1 mile, the alarm will flash a message when you come within 0.1 mile of the recalled waypoint.

The off-course alarm warns you when your track drifts too far to the right or left of the course line to the waypoint. If the alarm is set to 0.1 mile, an alarm message will flash if you drift 0.1 mile or more to the right or left of the line to the waypoint.

The anchor alarm is triggered when you drift outside of a preset radius. If you're anchored and your boat moves more than 0.1 mile, an alarm message will flash and a tone will sound.

You can only adjust alarm distance settings or turn alarms off or on in Advanced Mode.



Alarms command (left); Alarm menu (right).

To change alarm settings:

1. Press **MENU** | **MENU** | ↓ to **ALARMS** | **ENT**.

2. Scroll ↓ or ↑ to select the desired category, then press **ENT** to check or uncheck the enabled box. This turns the alarm on (checked) or off (unchecked).

3. To change distance settings, use the ↑ or ↓ keys to select the desired category, then press →. To activate the distance dialog box, press **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the distance is correct.

4. When your adjustments are finished, return to the main page displayed by repeatedly pressing **EXIT**.

IMPORTANT ALARM NOTES:

Anchor Alarm – The anchor alarm may be triggered even when you're sitting still. This can happen when using small (less than 0.05 mile) anchor alarm ranges.

Arrival Alarm – If you set the arrival alarm's distance to a small number and run a route (see the Navigate Routes segment), this unit may not show navigation data to the next waypoint, after you have arrived at the first one. That will be the case if you are unable to come close enough to the first waypoint to trip the arrival alarm.

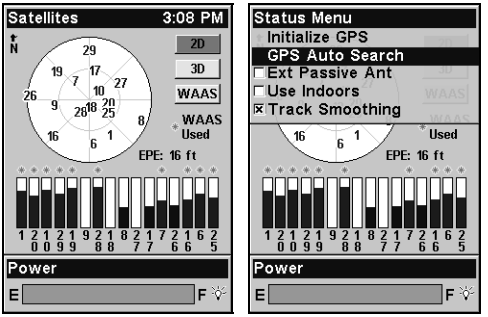
Auto Satellite Search

To lock onto the satellites, the GPS receiver needs to know its current position, UTC time and date. Elevation (altitude) is also used in the equation, but it's rarely required to determine a position. It needs this data so it can calculate which satellites should be in view. It then searches for only those satellites.

When your GPS receiver is turned on for the first time, it doesn't know what your position or elevation (altitude) is. The unit begins searching for the satellites using data acquired the last time it was turned on. This was probably at the factory. Since it's almost certain you're not at our factory, it's probably looking for the wrong satellites.

If it doesn't find the satellites it's looking for after a short time, it switches to Auto Search. The receiver looks for any satellite in the sky. Due to advanced technology, the auto search time has shrunk significantly from the early days of GPS.

Once the unit locks onto the satellites, it should take less than a minute to find your position the next time it's turned on, provided you haven't moved more than approximately 100 miles from the last location it was used.



Satellite Status page (left); Satellite Menu (right).

You can force the unit to immediately kick into auto search mode. Here's how:

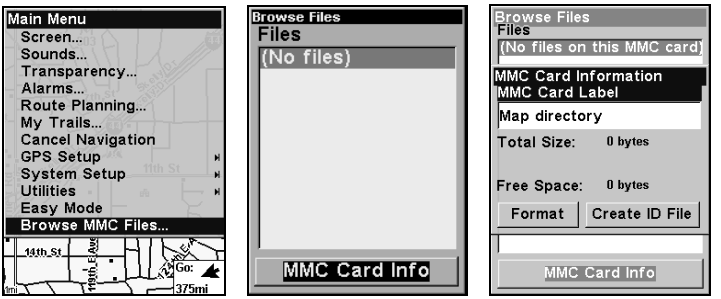
1. While in Advanced Mode press **PAGES** until you are on the Satellites page.

2. Press **MENU** | ↓ to **GPS AUTO SEARCH** | **ENT** then ← to **YES** | **ENT**.

Check MMC Files and Storage Space

To check MMC Files:

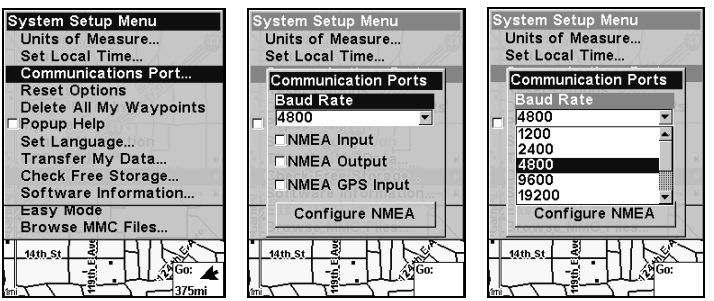
1. In Advanced Mode, press **MENU** | **MENU** | ↓ to **BROWSE MMC FILES** | **ENT**.



Main Menu (left); MMC File Browser (center and right).

Com Port Configuration

The iFINDER has one NMEA 0183 version 2.0 compatible communication port (com port). The Com Port Menu, accessed from the System Setup Menu in Advanced Mode, allows you to configure the communications port to send data to another electronic device, like an autopilot.



Menus for changing Com Port settings.

For connectors and wiring information for another device, consult the factory. Customer service phone numbers are in the back of this manual.

To set Com Port Configuration:

1. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT**.

2. Press ↓ to **COMMUNICATIONS PORT** | **ENT** | **ENT**.

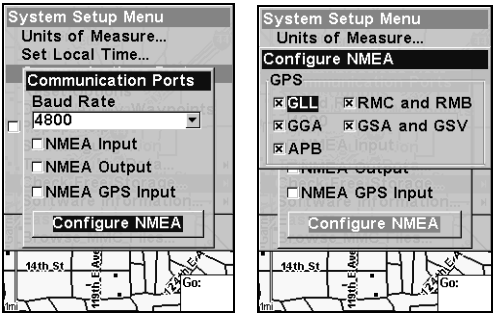
3. Use the ↓ ↑ keys to select the desired Baud Rate and press **ENT**.

Configure NMEA

You can configure the unit to use specific NMEA sentences.

2. From the Communications Port menu, press ↓ to **CONFIGURE NMEA** | **ENT**.

3. A menu appears showing the prefixes of the available NMEA sentences. A check mark next to a prefix means the prefix is in use. Use ↑ ↓ → ← to select a prefix, then press **ENT** to turn the prefix on or off.



Communication Port menu (left) with Configure NMEA menu (right).

NOTE:

The names of the NMEA sentences are abbreviated in this menu. These are the functions of the various selectable prefixes:

- GLL transmits latitude and longitude of present position, time of position fix, and status.
- RMC and RMB transmits navigation information messages.
- APB transmits autopilot information.
- GGA transmits time, position, and fix related data.
- GSA and GSV transmits fix mode, DOP values, and satellites in view information.

4. When the desired prefixes are checked or unchecked, press **EXIT** repeatedly to return to the previous page.

Use WAAS/EGNOS

The iFINDER H2Oc has a new feature that allows users to turn WAAS and EGNOS reception on and off. The default value is on. EGNOS (European Geostationary Navigation Overlay Service) is the European

equivalent of WAAS. Like WAAS, it makes GPS position calculation more accurate. To determine the accuracy in your area, place yourself in a known location and turn on the GPS. Note your location on the map with WAAS/EGNOS on, then turn it off and check again. Use the setting that is most accurate in your area.

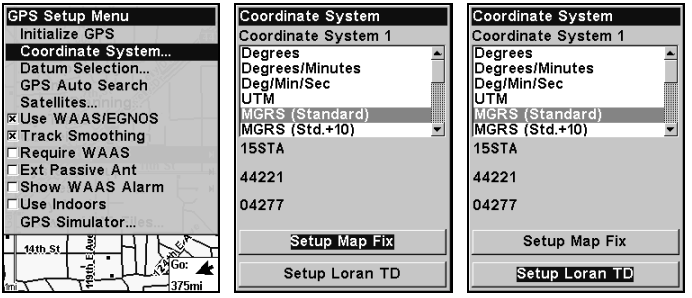
To Turn on or off WAAS/EGNOS:

1. Press **MENU** | **MENU** | ↓ to **GPS SETUP** | **ENT**.

2. Press ↓ to **USE WAAS/EGNOS** | **ENT**, which will turn on (check) or turn off (uncheck) the feature. Press **EXIT** to clear the menus. Note that this setting can only be accessed in Advanced Mode.

Coordinate System

The Coordinate System Menu lets you select the coordinate system to use when displaying and entering position coordinates. Access this function only in Advanced Mode.



Menus for changing coordinate system used to display positions.

This unit can show a position in degrees (36.14952°); degrees, minutes and thousandths of a minute (36° 28.700'); or degrees, minutes, seconds and tenths of a second (36° 28' 40.9'). It can also show position in: UTM (Universal Transverse Mercator) projection; MGRS (Standard); MGRS (Standard + 10); Map Fix; Loran TD; British, Irish, Finnish, German, New Zealand, Swedish, Swiss, Taiwan, Greek and Military grids.

UTM's are marked on USGS topographic charts. This system divides the Earth into 60 zones, each 6 degrees wide in longitude.

British, Irish, Finnish, German, New Zealand, Swedish, Swiss, Taiwan, and Greek grid systems are the national coordinate system used only in their respective countries. In order to use these grid systems, you must be in the respective country.

This unit will pick the matching datum for you when you select the grid. See the entry on Map Datum Selection for more information.

The military grid reference system (MGRS) uses two grid-lettering schemes, referred to as standard and alternate MGRS on this unit. Your position and datum in use determines which one to use. If you use standard, and your position is off significantly, then try the alternate MGRS.

NOTE: When the position format is changed, it affects the way all positions are shown on all screens. This includes waypoints.

To select a coordinate system:

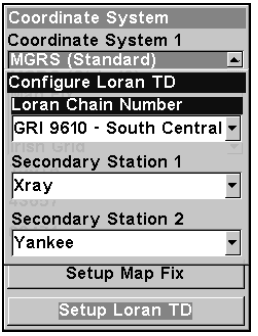
1. Press **MENU**|**MENU**|↓ to **GPS SETUP**|**ENT**|↓ to **COORDINATE SYSTEM**|**ENT**|**ENT**. Press the ↑ or ↓ arrow keys to highlight the desired format. Press **ENT** to select it.

To setup Loran TD:

1. From the Coordinate System menu, press ↓ to **SETUP LORAN TD** and press **ENT**.

NOTE:

If the Loran TD conversion is chosen, you must enter the local Loran chain identification for the master and slaves.



Configure Loran TD menu.

To access the Loran Chain Number, Secondary Station 1 or Secondary Station 2 menus, highlight the category and press **ENT**. Use the ↑ ↓ keys to choose the desired setting and press **ENT**. Press **EXIT** to close the menu.

Map Fix

Map Fix is used with charts or maps. This system asks for a reference position in latitude/longitude, which you take from a marked location on the map. It then shows the present position as distance on the map from that reference point. For example, if it shows a distance of UP 4.00" and LEFT 0.50", you then measure up four inches and to the left a half-inch from the reference point on the map to find your location.

To configure a map fix:

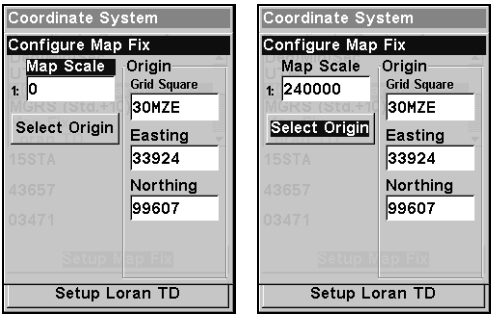
To use this format, you need to follow these steps in order. First, take your map of the area and determine a reference latitude/longitude.

NOTE:

In order for this system to work, the latitude/longitude lines must be parallel with the edge of the map. USGS maps are parallel, others may not be. This works better with smaller scale maps.

The reference position can be anywhere on the map, but the closer it is to your location, the smaller the numbers will be that you'll have to deal with. Once you've decided on a reference position, you can save it as a waypoint. See the waypoint section for information on saving a waypoint. Save the reference position as a waypoint. Now exit the waypoint screens.

From the Coordinate System menu press ↓ to **SETUP MAP FIX | ENT**. The following screens appear with **MAP SCALE** highlighted. Press **ENT** to input the map's scale. This, typically, is at the bottom of the paper map. It's shown as a ratio, like 1:24000. After inputting the map scale, press **ENT**.



Configure a map fix so the iFINDER can find your position on a printed chart or topographical map.

Press ↓ to **SELECT ORIGIN | ENT**, which will launch the Select Point window with three options: My Waypoints, Map Places and Highway Exits. If you saved the reference point as a waypoint, choose **MY WAYPOINTS** by pressing **ENT | ENT**, which will bring up the Waypoint list with the waypoint nearest your location at the top. Use the ↓ ↑ keys to select the waypoint you want to assign as a reference point and press **ENT**. The unit displays a waypoint information screen with the command **SET AS ORIGIN** selected. Press **ENT** and the unit returns to the Configure Map Fix menu. Finally, press **EXIT** to close this menu. Now press ↑ to **COORD SYSTEM | ENT**, select **MAP FIX** from the list and press **ENT**. All position information now shows as a distance from the reference waypoint you chose. Press **EXIT** repeatedly to return to the map page display.

Customize Page Displays

The Digital Data, Navigation, and Map pages all have customizable options available in Advanced Mode. The options give you control over what information will be viewed on each page.

Customize Digital Data Page

The Digital Data page has six boxes that may be customized. While on the Digital Data Page, press **MENU** | ↓ to **CUSTOMIZE** | **ENT**. A data box begins to flash. Use the arrow keys to select the box you want to change. With the desired display box highlighted and flashing, press **ENT** to open a list of data options. Use ↓ or ↑ to select a data category, then press **ENT** to open the category menu. Select the data option you want to display and press **ENT**, which will turn on (check) or turn off (uncheck) the box next to the option. You can repeat these steps to change the display in another box. When all your changes are finished, press **EXIT** | **EXIT** to return to the main page display.

Customize Navigation Page

While on the Navigation Page press **MENU** | ↓ to **CUSTOMIZE** | **ENT**. Use ↓ or ↑ to select a data category, then press **ENT** to open the category menu. Select the data option you want to display and press **ENT**, which will turn on (check) or turn off (uncheck) the box next to the data option. Repeat these steps to change the display in another box. When all your changes are finished, press **EXIT** | **EXIT** to return to the main page display.

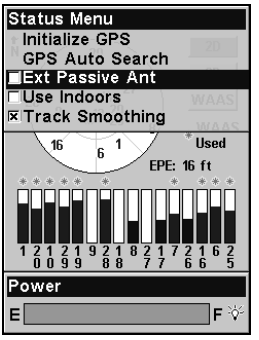
Customize Map Page

While on the Map Page press **MENU** | ↓ to **CUSTOMIZE** | **ENT**. Use ↓ or ↑ to select a data category, then press **ENT** to open the category menu. Select the data option you want to display and press **ENT**, which will turn on (check) or turn off (uncheck) the box next to the option. Repeat these steps to change the display in another box. When all your changes are finished, press **EXIT** to return to the main page display

External Passive Antenna

The iFINDER H2OC can be used with an optional external antenna. While we recommend the more powerful external active antenna, the unit can also operate with an external *passive* antenna. To do this, modify the settings so the unit will look for an external passive antenna rather than an external active antenna.

From the Satellite Status page, press **MENU** | ↓ to **EXT PASSIVE ANT**. Press **ENT** to turn on (check) or turn off (uncheck) the command.



Remote Passive Antenna command on the Satellite Status Menu.

WARNING:

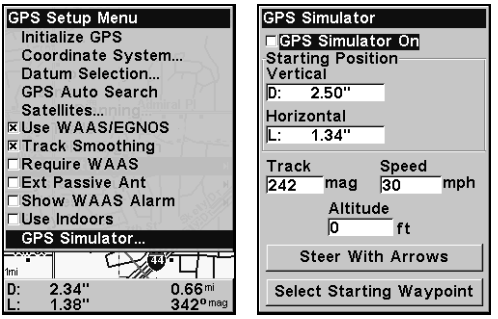
As long as the External Passive Antenna command is activated, the iFINDER will *only* monitor GPS signals from an external passive antenna. If you have this command activated and are *not* using an external passive antenna, the unit will not be able to accurately lock on. To switch back to using the iFINDER's internal antenna (or to use an optional external *active* antenna), be sure to turn off this command.

GPS Simulator

The GPS simulator lets you use the unit to simulate outdoor navigation. You can set the starting location in latitude/longitude (Starting Position) or from a stored waypoint, map place or POI location (Starting Waypoint). You can move across the map by using the arrow keys (**STEER W/ ARROWS**) or by setting the track and speed in the boxes provided on simulator screen.

To get to the GPS Simulator:

1. Press **MENU** | **MENU** | ↓ to **GPS SETUP** | **ENT**.
2. Press ↓ to **GPS SIMULATOR** | **ENT**.



GPS Setup Menu (left) with GPS Simulator Menu (right).

Choose the desired settings, then turn on the simulator by highlighting **GPS SIMULATOR ON** and pressing **ENT**, which will turn on (check) or turn off (uncheck) the simulator. Press **EXIT** to close this menu. A message appears periodically, reminding you the simulator is on. To turn off the simulator, repeat the steps above or turn off the unit.

While in simulator mode, you can press **EXIT** to remove the steering and speed boxes from the screen. This will allow you to use the map cursor during a simulation. To turn on the steering and speed boxes again, return to the GPS Simulator menu, select **STEER WITH ARROWS** and press **ENT**.

Simulating Trail or Route Navigation

In Simulator mode, your unit can automatically follow a trail or route without manual steering if you use these steps:

1. From the Map Page, go to the simulator menu. Pick a **STARTING POSITION** at or near the beginning of your trail/route. Enter an approximate **TRACK** (shown in compass degrees) that will point you toward the start of the trail/route.

2. Set **SPEED** to zero. Select **STEER WITH ARROWS** command and press **ENT**, which turns on the simulator and returns you to the Map Page.

3. Begin navigating along the trail/route. (If you are close enough to the first waypoint, the arrival alarm will usually go off as soon as navigation begins. Press **EXIT** to clear the alarm.) When navigation starts, press ↑ (since you're using the Simulator's **STEER WITH ARROWS** command) to increase speed to the desired setting.

4. Press **EXIT** to turn off the steering and speed boxes. The unit will now automatically steer along the trail or route. When you arrive at your destination, cancel navigation as you normally do.

Map Auto Zoom

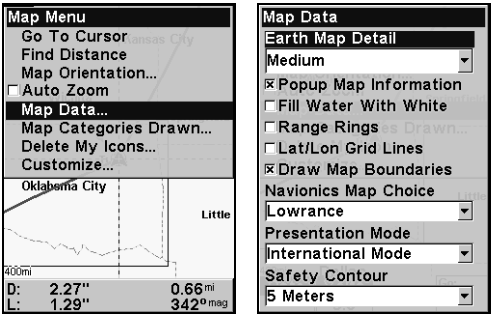
This receiver has an auto zoom feature that eliminates much of the button pushing common with other brands of GPS receivers. It works in conjunction with the navigation features.

First, start navigation to a waypoint. (See the waypoint section for more information on navigating to a waypoint.) Then, with auto zoom mode on, the unit zooms out until the entire course shows, from the present position to the destination waypoint. As you travel toward the destination, the unit automatically zooms in — one zoom range at a time — always keeping the destination on the screen.

To turn on this feature from the **MAP PAGE**, press **MENU**|↓ to **AUTO ZOOM**|**ENT**. Repeat these steps to turn it off.

Map Data

The Map Data menu lets you turn off the map — which turns the map screen into a GPS plotter — turn on or off pop-up map info boxes, draw map boundaries or boxes around areas of detail and fill water areas with white. You can also turn on or off Map Overlays, which display range rings and latitude and longitude grid lines on the map. Navionics maps also may be accessed on the Map Data menu. For detailed instructions, see the *Navionics Charts* entry in this section.



Map Menu (left) with Map Data Menu (right).

To Show Map Data

Press **MENU**|↓ to **MAP DATA**|**ENT**. Press **ENT** to access the **EARTH MAP DETAIL** selection list. From there, choose how much detail you want, ranging from Off (so the unit operates like a GPS plotter) to High. After the option is set, press **EXIT**.

Popup Map Information

From the Map Data menu, press ↓ to **POPUP MAP INFORMATION**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck). After the option is set, press **EXIT**.

Draw Map Boundaries

From the Map Data menu, press ↓ to **DRAW MAP BOUNDARIES**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck). After the option is set, press **EXIT**.

Fill Water with White

From the Map Data menu, press ↓ to **FILL WATER WITH WHITE**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck). After the option is set, press **EXIT**.

Map Overlays (Range Rings, Lat/Long Grid)

The map screen can be customized with range rings and/or grids that divide the plotter into equal segments of latitude and longitude.

Range rings are handy for estimating distances on the map. Ring diameters are based on the current zoom range. At a 100-mile zoom, the screen will show two rings with your current position in the center. The large ring touching the left and right sides of the screen is 100 miles in diameter (same as the zoom range). The second, smaller ring is 50 miles in diameter (always 1/2 the zoom range).

The distance from your current position to the smaller ring (the ring's radius) is 25 miles (always 1/4 the zoom range). With the arrow keys and map cursor, you can scroll the map to see the third and fourth rings. In this example, the distance from your current position to the third ring is 75 miles and distance to the fourth ring is 100 miles.

To set range rings: From the Map Data menu, press ↓ to **RANGE RINGS**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck).

To set Lat/Lon Grid Lines: From the Map Data menu, press ↓ to **LAT/LON GRID LINES**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck). After the option is set, press **EXIT** | **EXIT** to return to the main page display.

Map Datum Selection

Maps and charts are based on a survey of the area covered by the map or chart. These surveys are called Datums. Maps created using different datums will show the same latitude/longitude in slightly different locations.

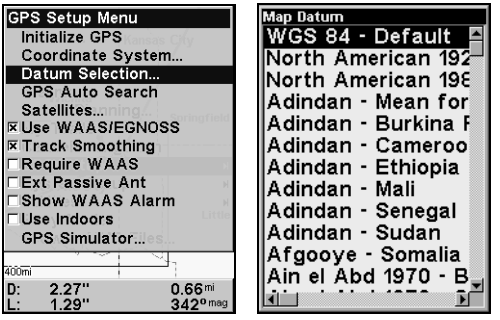
The GPS system is based on the WGS-84 datum, which covers the entire world. Other datums may also cover the entire world or just a small portion of it. By default, your position is shown using the WGS-84 datum. It, however, can show your position using any of 191 different datums.

Datums can be selected only in Advanced Mode. (Switch from Easy to Advanced: **MENU** | ↓ to **ADVANCED MODE** | **ENT** | ← | **ENT**).

To change the datum:

1. Press **MENU** | **MENU** | ↓ to **GPS SETUP** | **ENT** | ↓ to **DATUM SELECTION** | **ENT**.
2. Scroll ↓ or ↑ to select the desired datum, then press **ENT**.
3. To return to the main page display, press **EXIT** | **EXIT**.

A list of datums supported by this unit is in the back of this manual.



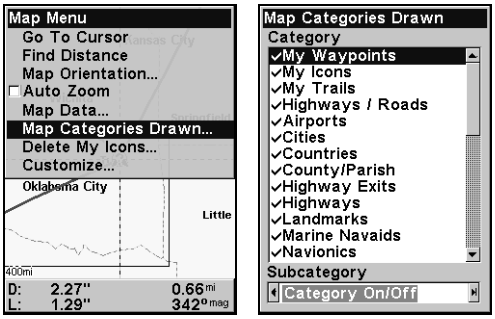
GPS Setup Menu (left) with Map Datum Menu (right).

Map Detail Category Selection

This menu determines which of the mapping features are shown on the screen. This includes waypoints, trails, icons, cities, highways, etc. You can turn on or turn off any of these items, customizing the map to your needs. Map Detail Categories may be turned on and turned off only in Advanced Mode. (Switch from Easy to Advanced: **MENU** | ↓ to **ADVANCED MODE** | **ENT** | ← | **ENT**.)

To get to Map Categories Drawn:

1. Press **MENU** | ↓ to **MAP CATEGORIES DRAWN** | **ENT**.
2. Press ↑ or ↓ to select a category or subcategory. Press **ENT** to turn it on (check) or turn it off (unchecked).
3. To return to the main page display, press **EXIT** | **EXIT**.

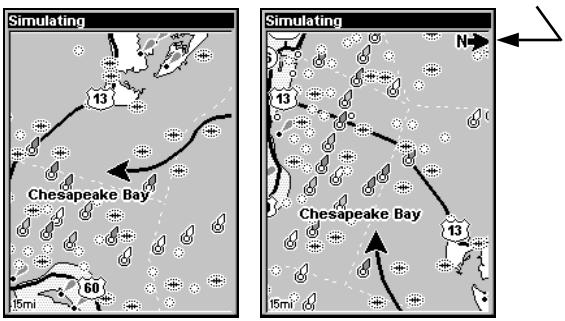


Map Menu (left) with Map Categories Menu (right).

Map Orientation

By default, this receiver shows the map with north always at the top of the screen. This is the way most maps and charts are printed on paper. You, however, can change the map orientation to Track Up or Course Up if you switch to Advanced Mode.

In Track Up mode, map shows "N" and arrow to indicate north.



Map orientation is shown in north up (left) and track up (right).

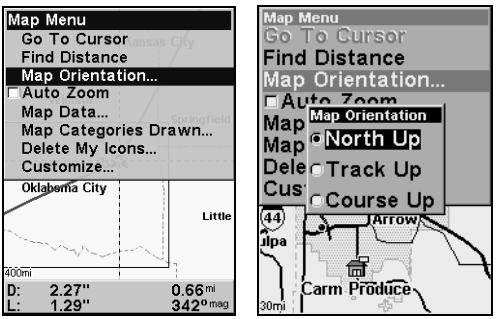
The default North Up setting is fine if you are always traveling north. What you see to your left corresponds to the left side of the map and what you see to your right is shown on the right side of the map as long as you keep heading north. If, however, you travel any other direction, the map doesn't line up with your view of the world.

If you want the map to match up with your view of the world when traveling in other directions, use Track-up mode, which rotates the map as you turn. That way, what you see on the left side of the screen will always be to your left and what you see on the right side of the screen will always be on your right.

Another option is course-up mode, which keeps the map at the same orientation as the initial bearing to the waypoint. When either the track-up or course-up mode is on, a "N" shows on the map screen to help you remember which direction is north.

You can benefit from switching back and forth between North Up and Track Up settings, depending on the circumstances. If you are in an area you know fairly well, run the unit in North Up. But when you are in unfamiliar territory and want to instantly coordinate your surroundings with what is displayed on the screen, switch to Track Up. Try all three modes to find what works best for you.

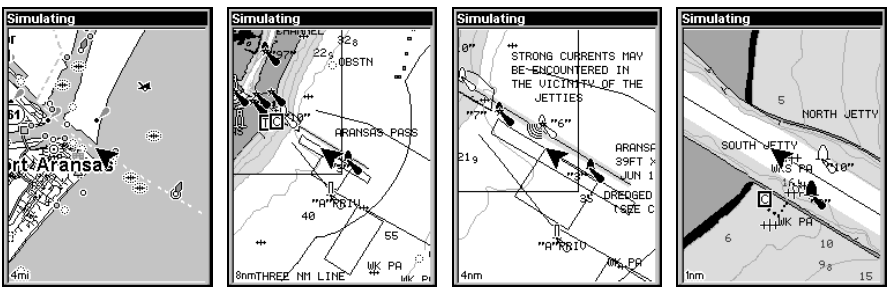
To change map orientation from the Map Page, press **MENU**|↓ to **MAP ORIENTATION**|**ENT**. Press ↑ or ↓ to select an orientation option, then press **EXIT**|**EXIT** to return to the main page display.



Map Menu (left) with Map Orientation menu (right).

Navionics® Charts

Your unit can display Navionics® electronic charts on MMCs. Both the GOLD™ and CLASSIC™ format charts are accepted. They work just like a MapCreate custom map on an MMC.



Entrance to Aransas Pass in a MapCreate 6 custom map, 4-mile zoom (left). Remaining images (left to right): same position on Navionics GOLD™ chart at 8-mile, 4-mile and 1-mile zoom ranges.

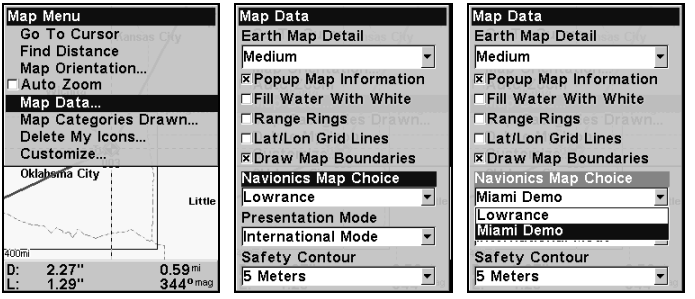
WARNING:

You should never format the MMC containing your Navionics chart. Formatting the MMC will permanently erase the chart from the card.

To display a Navionics chart:

1. Install the Navionics MMC in the memory card compartment and turn on the unit. (For full card install instructions, see Sec. 2.)

2. From the Map Page, press **MENU** | ↓ to **MAP DATA** | **ENT** | ↓ to **NAVIONICS MAP CHOICE** | **ENT**. Use ↑ or ↓ to select the *Map Name*, then press **ENT** | **EXIT** | **EXIT**.



These figures show the menu sequence (from left to right) for selecting a Navionics chart for the Miami area.

3. To turn off a Navionics chart from the Map Page, press **MENU** | ↓ to **MAP DATA** | **ENT** | ↓ to **NAVIONICS MAP CHOICE** | **ENT**. Use ↑ or ↓ to select **LOWRANCE**, then press **ENT** | **EXIT** | **EXIT**.

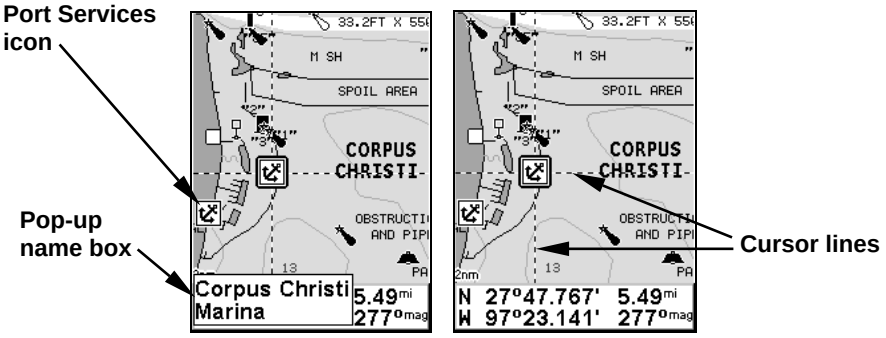
Port Information

Navionics charts contain Port Services information, represented by anchor icons on the map display. These icons appear at the 2 nautical mile zoom range. An example is displayed in the following figures.

To view Port Services information:

1. Use the arrow keys to move the cursor over a Port Services icon. When selected, a pop-up name box appears.

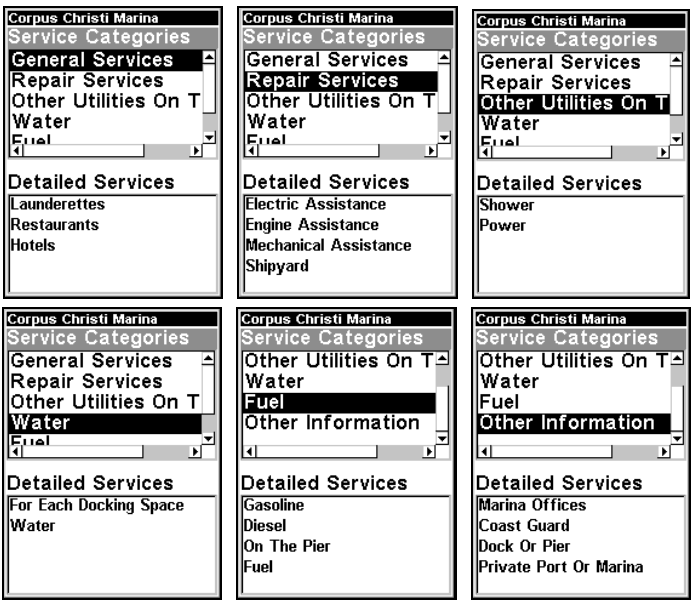
2. Press **FIND** | **FIND** to display the Port Services Information screen.



Navionics chart showing Port Services icon selected by cursor. When first highlighted, the Pop-Up name box appears. After a few seconds, the name box disappears, and the position, distance and bearing are displayed at the bottom of the screen.

The Port Services information screen has two windows. The top window lists various service categories. The lower window lists detailed services available in each category.

3. To scroll through the Service Categories window, press **ENT** then use ↑ or ↓ to see the types of services available. As you highlight a different category, the list in the lower window changes. To return to the main page display, press **EXIT** | **EXIT**.



Port Services information screens.

4. Depending on the location, the Detailed Services window may have a long list of services under the General Services category. To scroll through the Detailed Services window, press ↓ to **DETAILED SERVICES | ENT**, then use ↑ or ↓ to scroll through the list of available services. If the Detailed Services list is short, you will not be able to scroll through it. To return to the top service category window, press **ENT | ↑**. To return to the main page display, press **EXIT | EXIT**.

Tidal Current Information

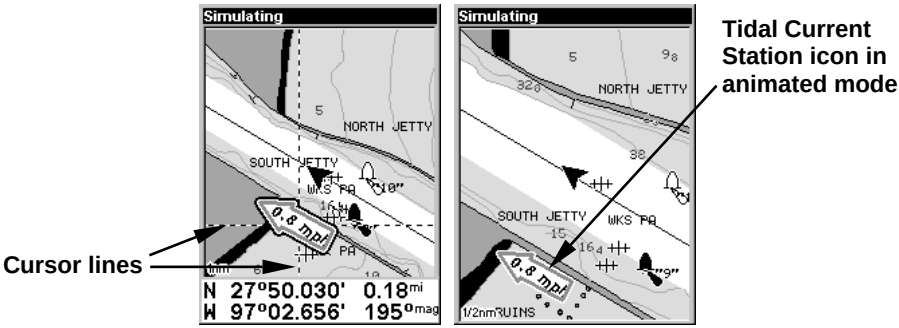
Navionics charts contain Tidal Current information, represented at large zoom ranges by a box icon with the letter "C." The icon stands for a Tidal Current Station location. An example is displayed at right.

When you zoom in to a sufficiently small zoom range (1/2 nautical mile), the icon itself becomes an animated arrow showing tidal current velocity and direction *for the selected tidal station* at the present time. At larger zoom ranges, you can select the boxed "C" icon and it becomes an animated arrow with a pop-up name box (the name box disappears after a few seconds). Examples are displayed in the following figures.

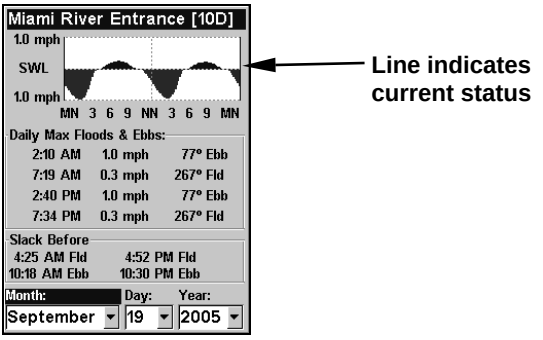
To view Tidal Current information:

1. Use the arrow keys to move the cursor over a Tidal Current Station icon. When selected, a pop-up name box appears.

2. Press **FIND | FIND** to display the Tidal Current Information screen.



Navionics chart showing Tidal Current Station icon selected by cursor (left). The icon animates automatically without selecting it at the 1/2-mile zoom range (right). The tidal current is flowing toward the northwest at a velocity of 0.8 mph.


Miami River Entrance [10D]
1.0 mph
SWL
1.0 mph
MN 3 6 9 NN 3 6 9 MN
Daily Max Floods & Ebbs:
2:10 AM 1.0 mph 77° Ebb
7:19 AM 0.3 mph 267° Fld
2:40 PM 1.0 mph 77° Ebb
7:34 PM 0.3 mph 267° Fld
Slack Before
4:25 AM Fld 4:52 PM Fld
10:18 AM Ebb 10:30 PM Ebb
Month: Day: Year:
September 19 2005
Line indicates current status

Current Information screen.

The Tidal Current Information screen displays daily tidal current data for this station on this date at the present time. The graph at the top of the screen is an approximate view of the flood and ebb pattern for the day, from midnight (MN), to noon (NN) to midnight (MN). The velocity scale at the top left side of the graph changes dynamically based upon the maximum velocity of the current for that day.

Slack water, the period of little or no current, is represented by the Slack Water Line (SWL). The flood appears above the SWL and the ebb appears below the SWL.

You can look up tidal current data for other dates by changing the month, day and year selection boxes.

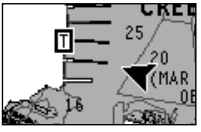
To select another date:

1. Use → and ← to highlight month, day or year, then press **ENT**.

2. Use ↑ and ↓ to select the desired month, day or year, then press **ENT**.

To clear the information screen, press **EXIT**.

Tide Information



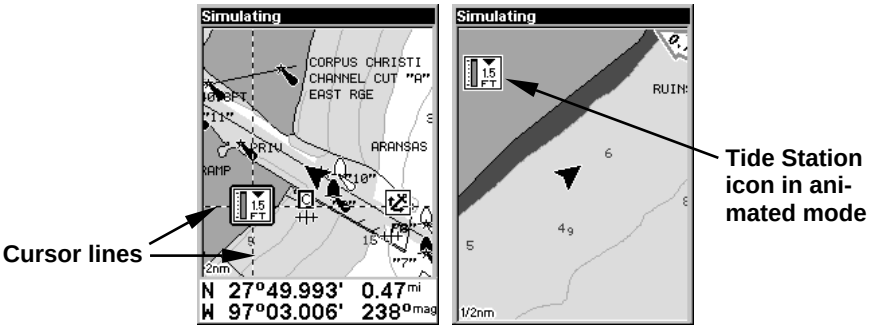
Navionics charts contain Tidal Information, represented at large zoom ranges by a box icon with the letter "T." The icon stands for a Tidal Station location. An example is displayed at right.

When you zoom in to a sufficiently small zoom range (1/2 nautical mile), the icon itself becomes an animated gauge showing a rising or falling tidal height *for the selected station* at the present time. At larger zoom ranges, you can select the boxed "T" icon and it becomes an animated gauge with a pop-up name box.

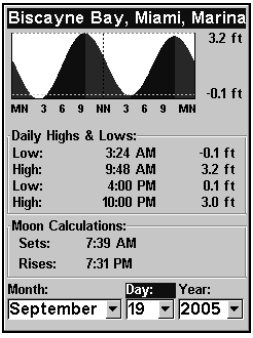
To view tide information:

1. Select a Tide Station icon, then use the arrow keys to move the cursor over an icon. When it is selected, a pop-up name box appears.

2. Press **FIND | FIND** to display the Tide Information screen.



Navionics chart showing Tide Station icon selected by cursor (left). Icon animates automatically without selection at the 1/2 mile zoom range (right). In the example above, the tide is at 1.5 feet and falling, as shown by the down arrow at the top of the icon.



Tide Information screen.

The Tide Information screen displays daily tidal data for this station on this date at the present time. The graph at the top of the screen is an approximate view of the tidal range pattern for the day, from midnight (MN) to noon (NN) to midnight (MN). The dotted line across the graph is the Mean Lower Low Water line (MLLW).

The height scale on the top right side of the graph changes, based upon the maximum *range* of the tide for that day. The MLLW line also adjusts its position as the height scale changes.

You can look up tidal data for other dates by changing the month, day and year selection boxes. To select another date:

1. Use → and ← to highlight month, day or year, then press **ENT**.

2. Use ↑ and ↓ to select the desired month, day or year, then press **ENT**.

To clear the information screen, press **EXIT**.

Pop-up Help

Help is available for most all menu items on this unit. Selecting a menu item and leaving it highlighted for a few seconds, a pop-up message appears, describing the function of the item. This feature is on by default.

To set up Popup Help, press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **POPUP HELP**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck). After the option is set, press **EXIT** | **EXIT** to return to the page display.

Pop-up Help message for the Screen command.

Reset Options

In Advanced Mode

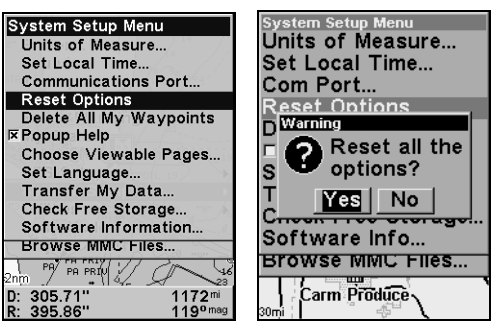
1. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **RESET OPTIONS** | **ENT** | ← to **YES** | **ENT**.

In Easy Mode

Hold down the **PAGES** key while you press **PWR** to turn the unit on.

NOTE:

Reset Options does *not* erase any waypoints, routes, icons or plot trails.



Advanced Mode's Reset Options command (left) and the Reset Options Menu (right).

Screen Contrast and Brightness

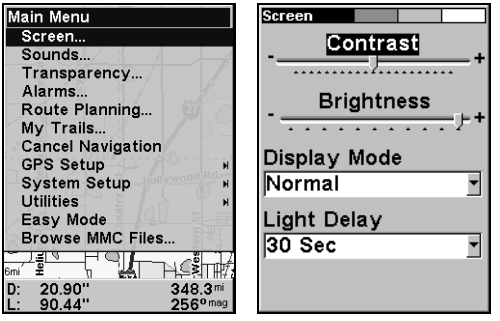
Screen adjustments work the same in both Easy and Advanced Mode, but you access the command differently in each mode.

In Easy Mode, press **MENU** | ↓ to **SCREEN** | **ENT**.

In Advanced Mode, press **MENU** | **MENU** | **ENT**.

To adjust the display's contrast:

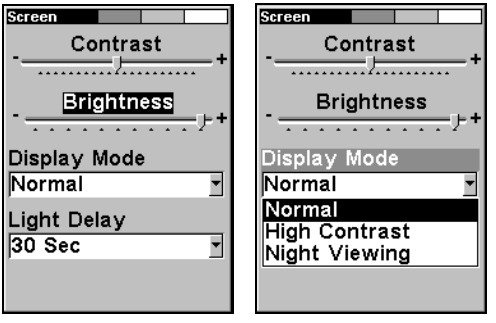
1. After accessing the screen menu, the **CONTRAST** slider bar will already be selected. Press → or ← to move the bar. The left end of the scale is minimum contrast. The right end is maximum contrast.



Screen Command (left) and Contrast bar (right).

To adjust the display's brightness:

1. Press ↓ to **BRIGHTNESS**. Press → or ← to move the bar. The left end of the scale is minimum contrast. The right end is maximum contrast.



Screen menu with brightness selected. Display mode menu.

To adjust the screen's display mode:

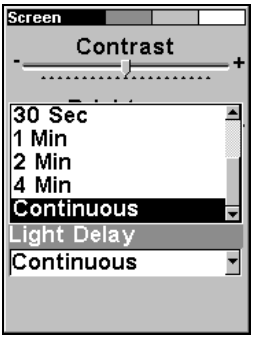
1. Press ↓ to **DISPLAY MODE** | **ENT** then press ↑ or ↓ to select *mode* | **EXIT**.

2. To return to the main page display, press **EXIT** | **EXIT**.

To adjust display's backlight delay options:

1. Press ↓ to **LIGHT DELAY** | **ENT** | press ↑ or ↓ to select *mode* | **EXIT**.

2. To leave screen settings and return to the main page display, press **EXIT** | **EXIT**.



Continuous selected on Light Delay menu. It's ideal for night travel in a vehicle, since the cigarette lighter can be used as the power source.

Set Language

This unit's menus are available in 10 languages: English, French, German, Spanish, Italian, Danish, Swedish, Russian, Dutch and Finnish.

To select a different language:

1. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT**.

2. Press ↓ to **SET LANGUAGE** | **ENT**.

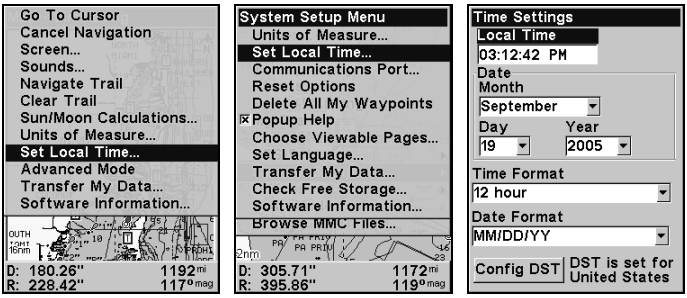
3. Use ↓ or ↑ to select a different language and press **ENT**. All menus now appear in the language you selected. Press **EXIT** | **EXIT** to return to the main page display.

Set Local Time

The method for setting local time works the same way in both Easy and Advanced Mode, but the **SET LOCAL TIME** menu is accessed differently in each mode.

In Easy Mode, press **MENU** | ↓ to **SET LOCAL TIME** | **ENT**.

In Advanced Mode, you first press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **SET LOCAL TIME** | **ENT**.



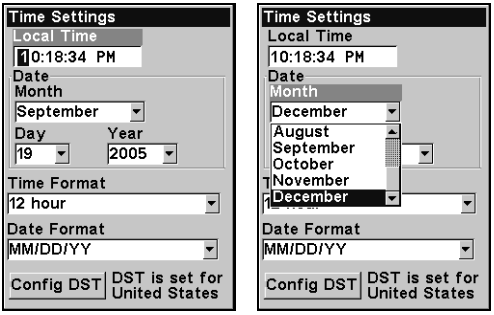
Set Local Time highlighted in (left) Easy Mode. Set local time selected in Advanced mode (center). Time Settings menu (right).

To set Local Time: from the Time Setting menu, press **ENT**. Press ↑ or ↓ to change the first character, then press → to move the cursor to the next character. Repeat until the time is correct, then press **ENT**.

To set the Month: from the Time Settings menu, press ↓ to **MONTH | ENT**. Press ↑ or ↓ to select the month, then press **ENT**.

To set the Day: from the Time Settings menu, press ↓ to **DAY | ENT**. Press ↑ or ↓ to select the day, then press **ENT**.

To set the Year: from the Time Settings menu, press ↓ → to **YEAR | ENT**. Press ↑ or ↓ to select the year, then press **ENT**.



Adjusting local time (left) and Adjusting the month (right).

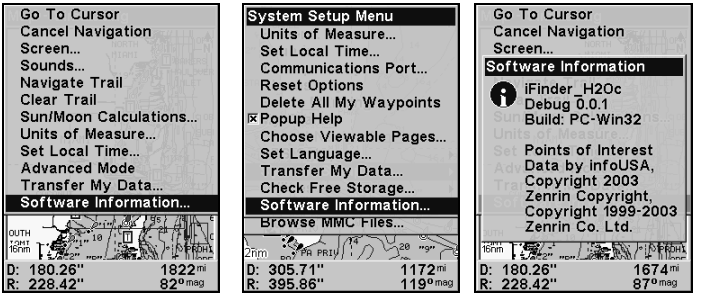
The last field in this menu is **CONFIG DST**. This feature allows your unit to automatically adjust to Daylight Saving Time (you should only have to set it once). You may select which set of rules matches DST in your region, or accept the default.

Once you have each field set the way you want, press **EXIT** repeatedly to return to the main page display.

Software Version Information

From time to time, Lowrance updates the operating system software in some of its products. These software upgrades usually are offered to

customers as free downloads from our web site, www.lowrance.com. The upgrades make the unit perform better and in many cases, introduce a new feature or function. You can find out what software version is running in your iFINDER by using the Software Info command.



Software Info command in Easy Mode (left). Advanced mode (center). The Software Info screen (right).

The command works the same in both Easy and Advanced Mode, but the Software Information is accessed differently in each mode.

In ***Easy Mode***:

1. Press **MENU** | ↓ to **SOFTWARE INFO** | **ENT**.
2. Read the information displayed on the screen.
3. To return to the main page display, press **EXIT** | **EXIT**.

In ***Advanced Mode***:

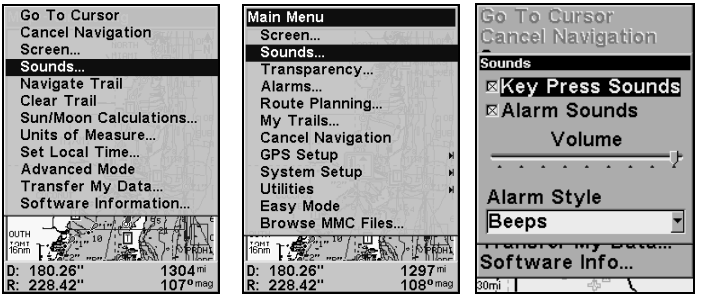
1. Press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | ↓ to **SOFTWARE INFO** | **ENT**.
2. Read the information displayed on the screen.
3. To return to the main page display, press **EXIT** repeatedly.

Sounds and Alarm Sound Styles

Key strokes and alarm sounds can be adjusted in the Sounds menu. The adjustments work the same in both Easy and Advanced Mode, but the Sounds menu is accessed differently in each mode:

In ***Easy Mode***, press **MENU** | ↓ to **SOUNDS** | **ENT**.

In ***Advanced Mode***, press **MENU** | **MENU** | ↓ to **SOUNDS** | **ENT**.



Sounds selected on main menu in Easy Mode (left). Sounds highlighted on main menu in Advanced mode (center). Sounds menu (right).

To set Key Sounds: from the Sounds menu, highlight **KEY PRESS SOUNDS** and press **ENT** to turn them on (check) or turn them off (uncheck).

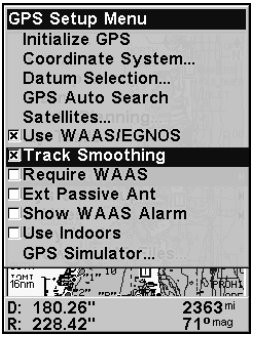
To set Alarm Sounds: from the Sounds menu, press ↓ to **ALARM SOUNDS.** With **ALARM SOUNDS** highlighted, press **ENT** to turn them on (check) or turn them off (uncheck).

To set Alarm Style, from the Sounds menu, press ↓ to **ALARM STYLE | ENT**. Press ↑ or ↓ to change the style and press **ENT**. After the option is set, press **EXIT | EXIT** to return to the main page display.

Track Smoothing

This is a factory setting that *should always be turned on*. When stopped or traveling at slow speeds, Track Smoothing prevents trails from wandering. The steering arrow, compass rose and map, in track-up mode, also benefit from Track Smoothing.

To turn on Track Smoothing, press **MENU | MENU**, then use the ↓ ↑ keys to select **GPS SETUP** and press **ENT**. Scroll down to **TRACK SMOOTHING** and press **ENT** to turn it on (check).



Track Smoothing option turned on.

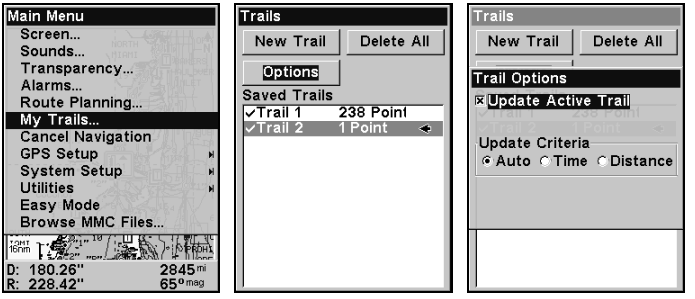
Trail Options

There are several options you can use with trails. Some affect all trails, others may be applied to specific trails. A few of the options include, displaying, hiding, creating, editing and deleting trails. These options are only available in Advanced Mode, but also will affect the appearance of trails in Easy Mode.

General Trail Options

To access the Trails Menu:

1. Press **MENU** | **MENU** | ↓ to **MY TRAILS** | **ENT**.



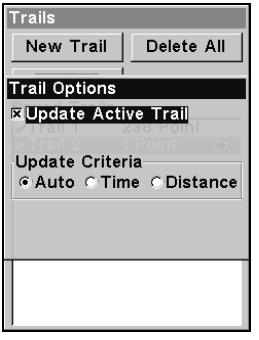
Main Menu (left); Trails Menu (center); Trail Options menu (right).

Delete All Trails

Once you are in the Trails menu, you can remove all trails from memory by pressing → to **DELETE ALL** | **ENT** | ← to **YES** | **ENT**.

Update Active Trail Option

This menu lets you change the way trail updates occur.



Trail Options menu.

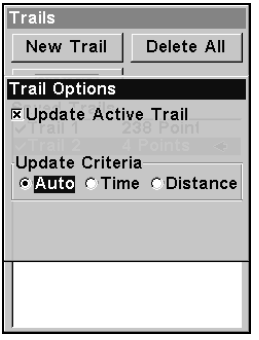
WARNING:

If the Update Active Trail option box is unchecked, automatic trail creation and recording will be turned *off* in both Advanced and Easy modes. You will have to turn it on again to record trails. The default setting is on.

Press ↓ or ↑ to **UPDATE ACTIVE TRAIL**. With the option highlighted, press **ENT** to turn it on (check) or turn it off (uncheck).

Update Active Trail Criteria (Auto, Time, Distance)

The options are automatic, time or distance. When it is in the default automatic mode, the unit doesn't update the plot trail while you're traveling in a straight line. Once you deviate from a straight line, the unit drops a plot point (trail waypoint) onto the trail. This conserves plot trail points. If a plot trail uses all of the available points allotted to it, the beginning points are taken away and placed at the end of the trail.



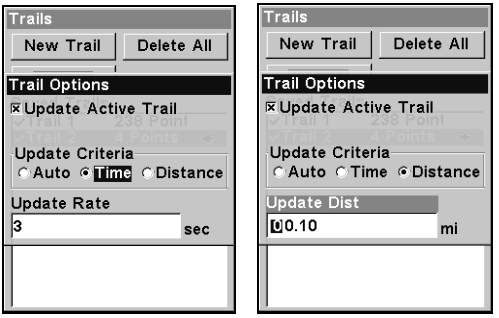
Trail Options menu.

Press ↓ to **UPDATE CRITERIA**, then press ← → to select the desired *criteria type* and press **ENT**.

Trail Update Rate (Time, Distance)

You can update a trail by time, with a range from 1 second to 9999 seconds. The default is 3 seconds. You can update by distance, with a range from 0.01 mile/nm/km to 9.99 mile/nm/km. The default is 0.10 mile.

With Update Criteria selected, press ↓ to either the rate or distance data entry boxes and press **ENT**. Press ↑ or ↓ to change the first character, then press → to the next character and repeat until the entry is correct. Press **EXIT** | **EXIT** to return to the Trails Menu.



Trail Options menu.

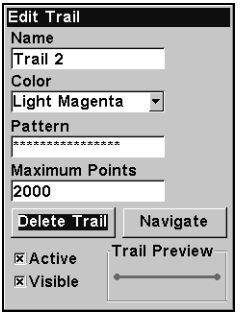
Specific Trail Options

Delete Trail

To delete a specific trail, from the Trails menu, press ↓ to the saved trail list, select a trail and press **ENT**. The Edit Trail menu appears as seen in the following figure. Press ↓ to **DELETE TRAIL** | **ENT** | ← to **YES** | **ENT**.

New Trail

If you want to manually start a new trail or delete a trail from the Trails Menu, highlight **NEW TRAIL** and press **ENT**. The edit trail menu appears with the new trail name listed in the name box at the top.



Edit trail menu.

Trail Visible/Invisible and Other Trail Options

The name, maximum number of points in the trail, activity and visibility are all changed on the Edit Trail screen. The Update Active Trail setting determines whether or not the iFINDER is recording new points for a particular trail.

Press ↓ or ↑ to highlight the option you wish to change, then press **ENT**. Make your changes and press **EXIT** to close this menu.

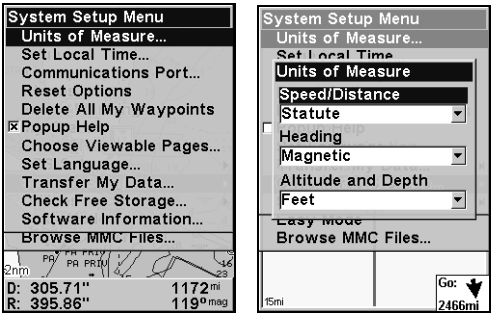
You can also change the trail line color and pattern. For instructions, see the entries on Edit a Trail Color and Edit a Trail Pattern in Sec. 4, Advanced GPS Operations.

Units of Measure

This menu (shown below) sets the speed and distance (statute or nautical miles, meters), depth (feet, fathoms, or meters), temperature (degrees Fahrenheit or Celsius) and heading (true or magnetic) units. To change the units:

In ***Easy Mode***, press **MENU** | ↓ to **UNITS OF MEASURE** | **ENT**.

In ***Advanced Mode***, press **MENU** | **MENU** | ↓ to **SYSTEM SETUP** | **ENT** | **ENT**.



Units of Measure highlighted (left). Units of Measure Menu (right).

To set Speed/Distance: from the Units of Measure menu, press **ENT** and use ↑ or ↓ to change the unit, then press **ENT**.

To set Heading: from the Units of Measure menu, press ↓ to **HEADING** | **ENT**, then use ↑ or ↓ to change the unit and press **ENT**.

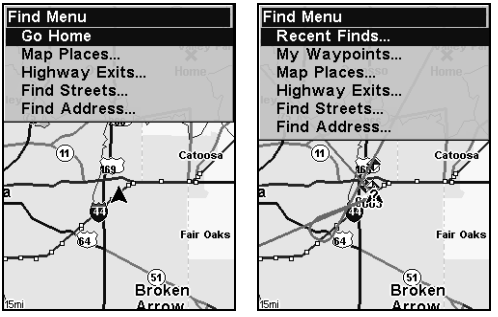
To set Altitude and Depth: from the Units of Measure menu, press ↓ to **ALTITUDE AND DEPTH** | **ENT**. Press ↑ or ↓ to change the unit, then press **ENT**. Press **EXIT** repeatedly to return to the main page display.

Section 6: Searching

NOTE:

The background map loaded in your unit lets you search for U.S. Interstate Highway exits and exit services, as well as land features, including cities and lakes. For a full set of searchable land features, including landmarks, streets, addresses and Points of Interest, you must load your own high-detail custom map produced with our MapCreate 6 software. For a complete description of what detail is found in the background map and custom MapCreate maps, check out page 25.

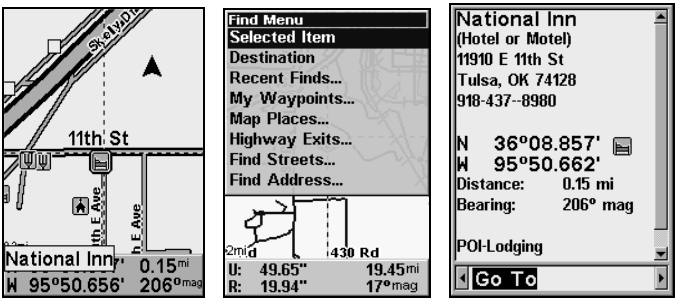
Whether you are in Easy Mode or Advanced Mode, the iFINDER's search functions all begin with the **FIND** key. The search menus work the same in each mode. The Go Home command, however, works only in Easy Mode just as the Find Waypoints command works only in Advanced Mode. (You can still find a Home waypoint in Advanced mode. Just search for it using the Find Waypoints command.)



Easy Mode Find menu (left); Advanced Mode Find menu (right).

NOTE:

You can search for items even if the iFINDER hasn't acquired a position yet. When you do a search, distance and bearing to the selected item will be calculated from the iFINDER's current position. If the iFINDER hasn't acquired a position, it will use the last known position. If the cursor is active, the iFINDER will always begin the search at the cursor. You can look up items by name or search for the item nearest to you.



Cursor crosshairs centered on a POI (left). The Find menu with Selected Item highlighted (center). POI information (right).

Selected Item

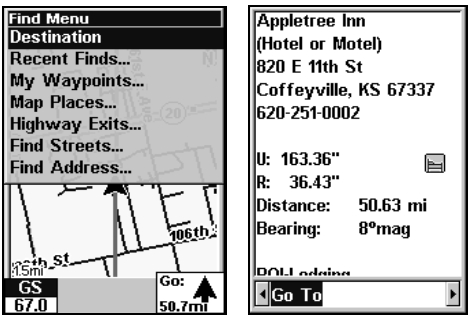
The Selected Item function will appear on the menu only when you have an item selected with the cursor crosshairs. It allows you to quickly access information on the selected location.

To access a Selected Item:

1. Center the cursor crosshairs on a POI on the map and press **FIND**.

2. **SELECTED ITEM** will be listed at the top of the Find menu. Press **FIND**, then press **ENT** to launch the POI information window.

3. At the bottom of the POI information window: **GO TO** will be highlighted. To navigate to the Selected Item press **ENT**. To Find the location on the Map, use the ← → keys to select **FIND ON MAP** and press **ENT**.



Destination highlighted on the Find menu (left).
POI information window (right).

Destination

When you are navigating to a location, **DESTINATION** will appear at the top of the Find menu. It provides quick access to navigation information about your destination.

To access Destination:

1. When navigating to a location, press **FIND**, select **DESTINATION** and press **ENT**.

2. If your destination is listed in the POI database, the POI information window will appear. If you are navigating to a location not listed in the POI database, an information window will appear displaying the distance to the target as well as your current bearing.

Recent Finds menu (left) with POI information window (right).

Recent Finds

The Recent Finds function keeps a record of places to which you have navigated either by cursor or via the Map Places menu.

To see Recent Finds:

1. Press **FIND**, select **RECENT FINDS** and press **ENT**.

2. Use the ↑ ↓ keys to scroll through the list.

3. To open the POI information window for a particular location, highlight the location and press **ENT**. Press **EXIT** to return to the Find Recent menu.

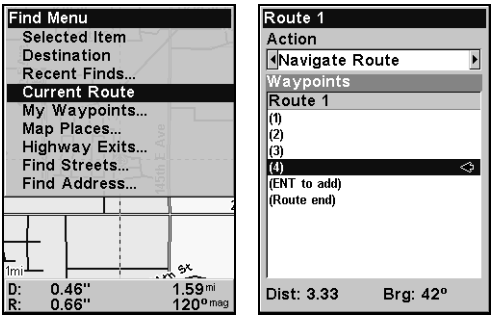
Current Route

When you are navigating a route, Current Route, gives you quick access to route menu.

To access Current Route information:

1. When navigating a route, press **FIND**, select **CURRENT ROUTE** and press **ENT**.

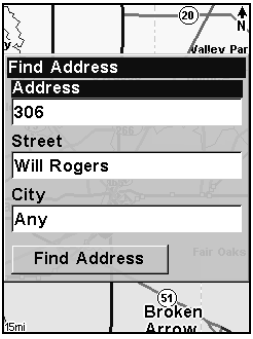
2. A window will appear, showing all the points within your current route. Press **EXIT** to return to the **FIND** menu.



Current Route highlighted on the Find menu (left). The trail menu (right) launches when CURRENT ROUTE is selected from the Find menu.

Find Addresses

1. Press **FIND** | ↓ to **FIND ADDRESS** | **ENT**.
2. Press **ENT** to search in the Address field.



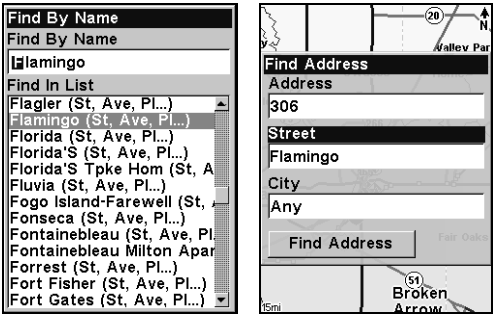
Find Address Menu.

3. **To enter an address number**: with the Address bar highlighted, press **ENT**, then use the ↑ or ↓ keys to change the first number. Press → to move the cursor to the next number and repeat until the number is correct, then press **ENT**.

4. **To enter a street name**, press ↓ to **STREET** | **ENT**. There are two options: **A.** You can **spell out** the name in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a street name from the list, then press **ENT**. The street name you selected is now in the street field. To return to the previous page, press **EXIT**.

Tip:

When entering a street name, do *not* enter the street's compass direction (N, S, E or W) in the street name field. Just enter the number, or name. If the example below had been a search for 324 E. 9th St, you would enter 9th and press **ENT**. The iFINDER will generate a list of all possible 9th streets and let you choose the one you want.



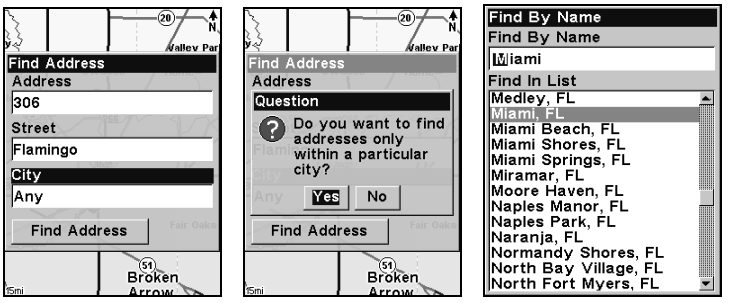
Find street by name menu (left); Street entry is complete (right).

5. **To enter a city name**, press ↓ to **CITY | ENT**. You will be asked if you want to find addresses only within a particular city. This option is designed so you can limit an address search to a single city if necessary (see the note below).

If you select yes, there are two options: **A.** You can **spell out** the city name in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT | ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a city name from the list, then press **ENT**. The city name you selected is now in the city field. To return to the previous page, press **EXIT**.

NOTE:

We recommend you do *not* enter a city name unless the resulting list is too large when you try searching without including the city. The iFINDER can actually search quicker without a city and you save time by not entering a city name.



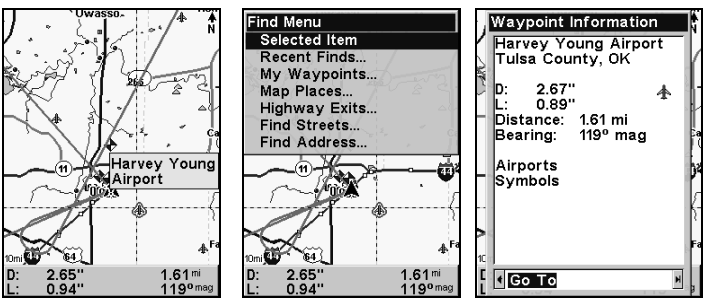
Find city field (left); Search in particular city only option (center); Find City by name (right).

6. When the necessary search fields are filled in, press ↓ to **FIND ADDRESS | ENT**. Your unit asks you to wait while it searches for the address. If an address is not in the database, a message appears saying the address could not be found, otherwise a list of addresses will appear on the screen.

7. If the address you are looking for is highlighted at the top of the list, press **ENT**. If not, use ↓ and ↑ to select the correct address from the list, then press **ENT**. A window will appear asking if you want to **FIND** or **GO TO** the address. Highlight the desired choice and press **ENT**.

Find Any Item Selected by Map Cursor

With a POI or map feature selected by the cursor, press **FIND | ENT**. To return to the previous page, press **EXIT**.



A POI selected by the cursor (left): The Find Menu (center); POI information screen (right).

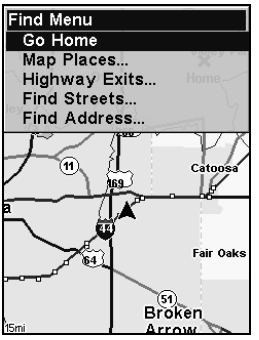
NOTE:

Since the **GO TO** command is highlighted, you can navigate to the selected POI by pressing **ENT** while in the POI Waypoint Information screen.

Find Home Waypoint

The Home Waypoint is a unique waypoint created when using the iFINDER in Easy Mode.

To search for the Home Waypoint in Easy Mode, press **FIND** | ↓ to **GO HOME** | **ENT**.



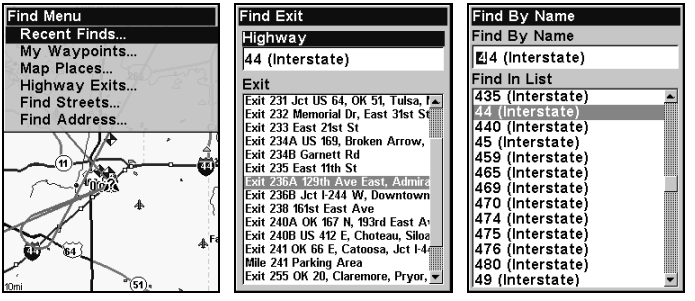
The Easy Mode Find Menu.

In Advanced Mode, you still have access to a Home Waypoint created in Easy Mode. It will show up in your waypoints list under the name Home. You can search for the Home Waypoint, navigate to it, add it to a route or use it exactly like any other waypoint.

Details on searching for waypoints in Advanced Mode can be found in the *Find Waypoints* segments, later in this section.

Find Interstate Highway Exits

1. Press **FIND** | ↓ to **HIGHWAY EXITS** | **ENT**, which calls up the Find Exit Menu.

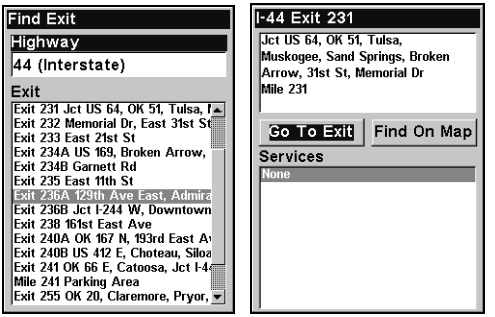


Find menu. (left); Find Exit menu (center) with Highway highlighted at the top. Press enter and the Find by Name menu (right) will appear.

2. To select a highway name press **ENT**, which calls up the Find By Name menu. There are two highway search options: **A.** You can **spell out** the highway name in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and

repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a highway from the list, then press **ENT**.

3. Once you have selected a highway name you can then select an exit. Press ↓ to switch to the Exit List, then use ↓ or ↑ to highlight the exit you want and press **ENT**. That will launch the Exit information window.


Find Exit
Highway
44 (Interstate)
Exit
Exit 231 Jct US 64, OK 51, Tulsa, I
Exit 232 Memorial Dr, East 31st St
Exit 233 East 21st St
Exit 234A US 169, Broken Arrow,
Exit 234B Garnett Rd
Exit 235 East 11th St
Exit 236A 129th Ave East, Admira
Exit 236B Jct I-244 W, Downtown
Exit 238 161st East Ave
Exit 240A OK 167 N, 193rd East Av
Exit 240B US 412 E, Choteau, Siloa
Exit 241 OK 66 E, Catoosa, Jct I-4
Mile 241 Parking Area
Exit 255 OK 20, Claremore, Pryor,
I-44 Exit 231
Jct US 64, OK 51, Tulsa, Muskogee, Sand Springs, Broken Arrow, 31st St, Memorial Dr
Mile 231
Go To Exit
Find On Map
Services
None

Find Exit menu (left) with Exit information screen (right). Go To Exit is highlighted.

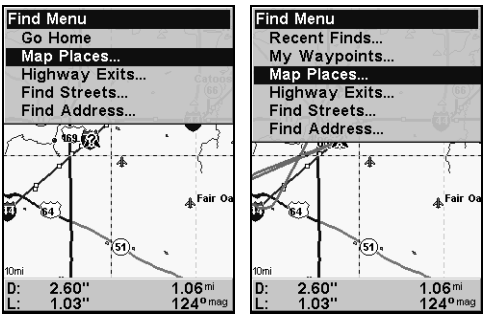
4. In the Exit Information screen you have two choices. **A.** Press **ENT** to navigate or **GO TO** the exit. **B.** Press → | **ENT** to find the exit on the map.

Tip:

You can also look up additional information on services located near this exit. Press ↓ to **SERVICES** | ↓ or ↑ to select *service name* | **ENT**.

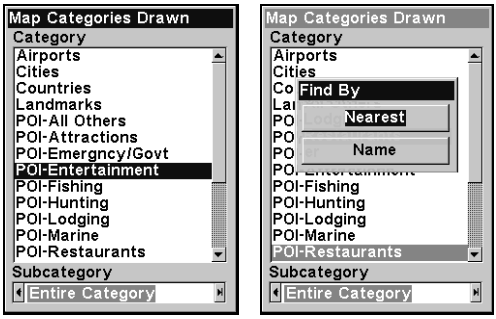
Find Map Places or Points of Interest (POI)

1. Press **FIND** | ↓ to **MAP PLACES** | **ENT**.



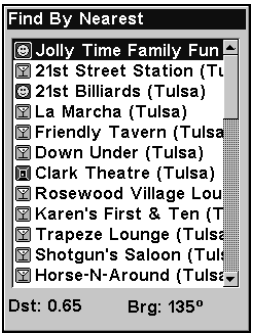
Easy Mode Find menu (left); Advanced Mode Find menu (right).

2. Press ↓ or ↑ to select a Map Place or POI category then press **ENT**. (To narrow your search, press ← or → to select a subcategory before pressing **ENT**.) You will be given two options: search for Nearest or search by Name.



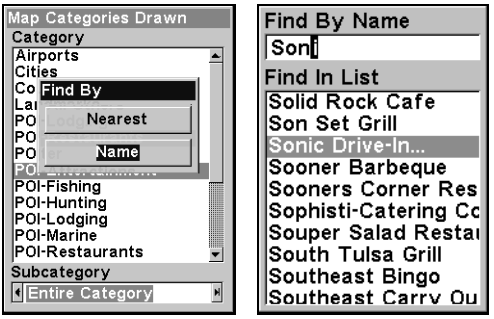
Map Places category menu.

3. **Search by nearest POI.** Nearest will be highlighted, so press **ENT**. The Find by Nearest menu will show a calculating screen then a list of nearest POIs will appear. Press ↓ or ↑ to select the desired POI and press **ENT** to call up the POI's Waypoint Information screen.



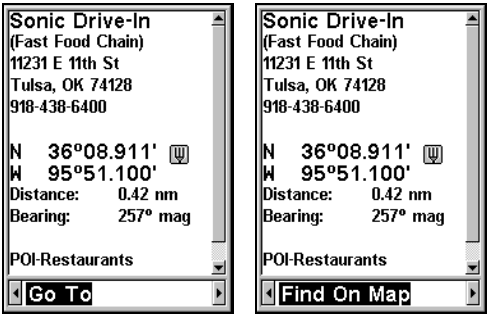
Find by nearest option selected (left). POI list (right).

4. **Search by name of POI.** When the Find By menu appears, press ↓ to **NAME** and press **ENT**. There are two options: **A.** You can **spell out** the POI in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT**|**ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a POI from the list, then press **ENT** to call up the POI's Waypoint Information screen.



Find by name option (left); Find by name menu (right).

5. When the POI's Waypoint Information screen appears, you can choose to **GO TO** the POI by pressing **ENT** or **FIND ON MAP** by pressing **→|ENT**.

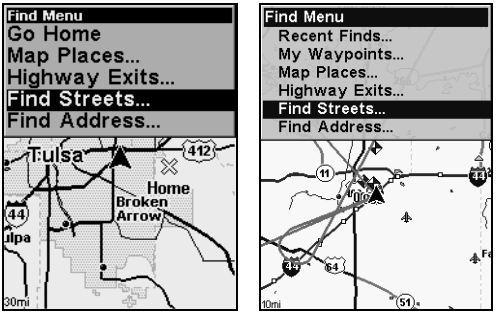


Go To POI option (left); Find on Map POI option (right).

Find Streets or Intersections

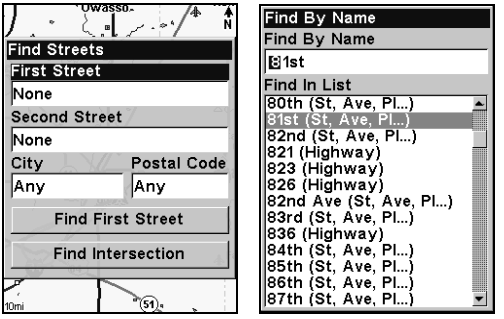
Find a Street

1. Press **FIND|↓** to **FIND STREETS|ENT** and the Find Streets menu appears.



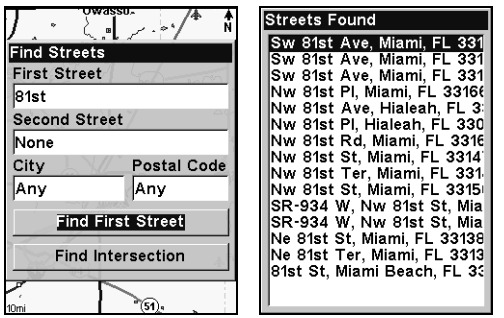
Easy Mode Find menu (left); Advanced Mode Find menu (right).

2. You must first fill in a street name in the First Street dialog box. Press **ENT** to display the Find By Name menu. There are two options: **A.** You can **spell out** the street in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT**|**ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a street from the list, then press **ENT**.



Find streets menu (left); Find by name menu (right).

3. The Find Streets menu reappears with the street you're searching for in the First Street box. (In this example, it's 81st Street.) To search for the street, press ↓ to **FIND FIRST STREET**|**ENT**. A message appears asking you to wait while the unit finds the street. When the Streets Found list appears, press ↑ or ↓ to the street you are searching for and press **ENT**.



Find first street (left); Streets found list (right).

If you want to navigate to the found street at the cursor location, just press **ENT**|**MENU**|**ENT**.

Find an Intersection

You must enter one street in the First Street dialog box, then enter the next street in the Second Street dialog box.

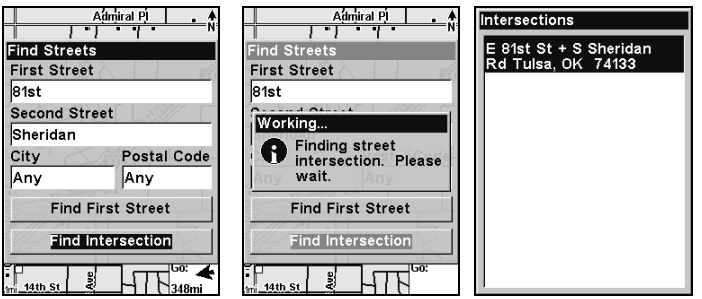
1. Press **FIND** | ↓ to **FIND STREETS** | **ENT** and the Find Streets menu appears.

2. Enter a street name in the First Street dialog box, then press **ENT** to display the Find By Name menu. There are two options: **A.** You can **spell out** the street in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a street from the list, then press **ENT**.

3. The street you're searching for appears in the First Street box.

4. Now fill in the second street. Press ↓ to **SECOND STREET** | **ENT** and the Find by Name menu appears again. Just like before, there are two options: **A.** You can **spell out** the street in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT** | **ENT**. **B.** Jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select the second street from the list, then press **ENT**.

5. The Find Streets menu reappears with the first and second streets dialog boxes filled in. In this example we selected Sheridan as our second street. You could now use similar techniques to select a city or Zip Code, but your search will probably be faster if you leave those boxes blank. You can specify a city and/or Zip Code later to narrow the search, if the resulting list is too long.



Find intersection selected (left); Working message (center); Intersection list (right).

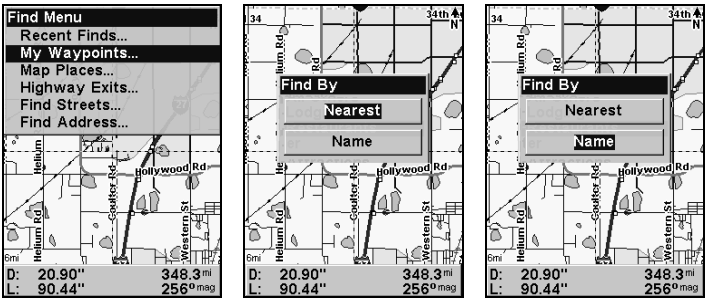
6. To search for the intersection of the two streets, press ↓ to **FIND INTERSECTION** | **ENT**. A message appears asking you to wait while the unit finds the intersection. When the Intersections list appears, press ↑ or ↓ to select the intersection you are searching for and press **ENT**. (In the previous example, we selected the intersection of E 81st St and Sheridan in Tulsa, Okla.

If you want to navigate to the found intersection, just press **ENT,** which will launch a menu that will give you two options: **FIND** and **GO TO**. To navigate to location, press → to select **GO TO** and press **ENT**.

Find Waypoints *(Advanced Mode only)*

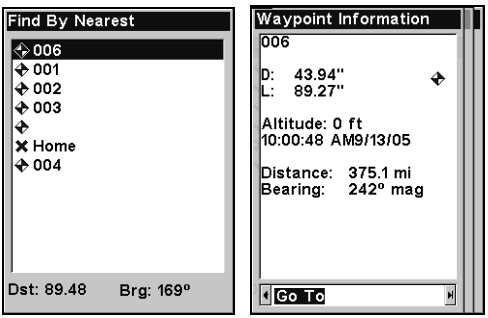
1. Press **FIND** | ↓ to **MY WAYPOINTS** | **ENT**.

2. If searching for the Nearest waypoint, press **ENT**. If searching for a waypoint By Name, press ↓ | **ENT**. (To search by name, jump to step 5 below.)



Find menu (left); Find By Nearest (center); Find by Name (right).

3. **If you're looking for nearest**, the iFINDER says it is calculating, then a list of waypoints appears. The closest is highlighted at the top of the list with the one furthest from you at the bottom of the list.



List of nearest waypoints (left); Waypoint information screen with Go To highlighted (right).

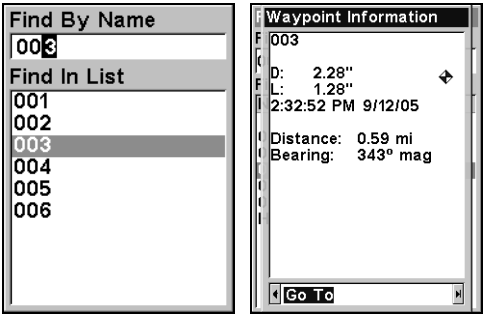
4. To see location information on the closest (highlighted) waypoint, press **ENT** and the Waypoint Information screen appears. If you wanted to, you could select another waypoint from the list with the ↑ or ↓ keys.

A. ***To navigate*** to the waypoint, press press **ENT**. (The **GO TO** Waypoint command is already highlighted.) The unit will show navigation information to the waypoint.

B. ***To find*** the waypoint, press → to **FIND ON MAP | ENT**. The Map Page appears with the cursor highlighting the found waypoint.

To clear these menus and return to the main page display, press **EXIT** repeatedly.

5. **If you're looking by name**, there are two options: **A.** You can **spell out** the name in the top selection box. Press ↑ or ↓ to change the first letter, then press → to move the cursor to the next letter and repeat until the name is correct, then press **ENT | ENT**. **B.** Or jump down to the lower selection list by pressing **ENT**, then press ↓ or ↑ to select a waypoint from the list and press **ENT**. The Waypoint Information screen appears.



Find By Name menu.

A. ***To navigate*** to the waypoint, press **ENT**. The **GO TO** Waypoint command is already highlighted. The unit will show navigation information to the waypoint.

B. ***To find*** the waypoint, press → to **FIND ON MAP | ENT**. The Map Page appears with the cursor highlighting the found waypoint.

To clear these menus and return to the main page display, press **EXIT** repeatedly.

Section 7: Supplemental Material
Datums Used by This Unit

WGS 1984
Default

Adindan
Mean for Ethiopia, Sudan

Adindan
Burkina Faso

Adindan
Cameroon

Adindan
Ethiopia

Adindan
Mali

Adindan
Senegal

Adindan
Sudan

Afgooye
Somalia

Ain el Abd 1970
Bahrain

Ain el Abd 1970
Saudi Arabia

Anna 1 Astro 1965
Cocos Islands

Antigua Island Astro 1943; Antigua (Leeward Islands)

Arc 1950; Mean for Botswana, Lesotho, Malawi, Swaziland, Zaire, Zambia and Zimbabwe

Arc 1950 - Botswana

Arc 1950 - Burundi

Arc 1950 - Lesotho

Arc 1950 - Malawi

Arc 1950 - Swaziland

Arc 1950 - Zaire

Arc 1950 - Zambia

Arc 1950 - Zimbabwe

Arc 1960 - Mean for Kenya, Tanzania

Ascension Island 1958 - Ascension Island

Astro Beacon E 1945 - Iwo Jima

Astro DOS 71/4 - St. Helena Island

Astro Tern Island (FRIG) 1961 - Tern Island

Astronomical Station 1952 - Marcus Island

Australian Geodetic 1966 - Australia & Tasmania

Australian Geodetic 1984 - Australia & Tasmania

Ayabelle Lighthouse - Djibouti

Bellevue (IGN) - Efate & Erromango Islands

Bermuda 1957 - Bermuda

Bissau - Guinea-Bissau

Bogota Observatory - Colombia

Bukit Rimpah - Indonesia (Bangka & Belitung Islands)

Camp Area Astro - Antarctica (McMurdo Camp Area)

Campo Inchauspe - Argentina

Canton Astro 1966 - Phoenix Islands

Cape - South Africa

Cape Canaveral - Bahamas, Florida

Carthage - Tunisia

Switzerland

Chatham Island Astro 1971; New Zealand (Chatham Island)

Chua Astro
Paraguay

Corrego Alegre
Brazil

Dabola
Guinea

Djakarta (Batavia)
Indonesia (Sumatra)

DOS 1968
New Georgia Islands (Gizo Island)

Easter Island 1967
Easter Island

European 1950
Mean for Austria, Belgium, Denmark, Finland, France, West Germany, Gibraltar, Greece, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland

European 1950
Mean for Austria, Denmark, France, West Germany, Netherlands, Switzerland

European 1950
Mean for Iraq, Israel, Jordan, Lebanon, Kuwait, Saudi Arabia, Syria

European 1950
Cyprus

European 1950
Egypt

European 1950
England, Channel Islands, Ireland, Scotland, Shetland Islands

European 1950
Finland, Norway

European 1950
Greece

European 1950
Iran

European 1950
Italy (Sardinia)

European 1950
(Sicily)
European 1950
Malta

Ireland 1965
Ireland

ISTS 061 Astro 1968
South Georgia Islands

ISTS 073 Astro 1969
Diego Garcia

Johnston Island 1961
Johnston Island

Kandawala
Sri Lanka

Kerguelen Island 1949
Kerguelen Island

Kertau 1948
West Malaysia & Singapore

Kusaie Astro 1951
Caroline Islands

L.C. 5 Astro 1961
Cayman Brac Island

Leigon
Ghana

Liberia 1964
Liberia

Luzon
Philippines (Excluding Mindanao)

Luzon
Philippines (Mindanao)

Mahe 1971
Mahe Island

Massawa
Ethiopia (Eritrea)

Merchich
Morocco

Midway Astro 1961
Midway Islands

Minna
Cameroon

Minna
Nigeria

Montserrat Island Astro 1958; Montserrat (Leeward Islands)

M'Poraloko
Gabon, Nahrwan, Oman (Masirah Island)

Nahrwan
Saudi Arabia

Nahrwan
United Arab Emirates

Naparima BWI
Trinidad & Tobago

North American 1927
Mean for Antigua, Barbados, Barbuda, Caicos Islands, Cuba, Dominican Republic, Grand Cayman, Jamaica, Turks Islands

North American 1927
Mean for Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua

North American 1927
Mean for Canada

North American 1927
Mean for CONUS (Continental United States)

North American 1927
Mean for CONUS (East of Mississippi River) including Louisiana, Missouri, Minnesota

North American 1927
Mean for CONUS (West of Mississippi River)

North American 1927
Alaska

North American 1927
Bahamas (Except San Salvador Island)

North American 1927
Bahamas (San Salvador Island)

North American 1927
Canada (Alberta, British Columbia)

North American 1927
Canada (Manitoba, Ontario)

North American 1927
Canada (New Brunswick, Newfoundland, Nova Scotia, Quebec)

North American 1927
Canada (Northwest Territories, Saskatchewan)

North American 1927
Canada (Yukon)

North American 1927
Canal Zone

North American 1927
Cuba

North American 1927
Greenland (Hayes Peninsula)

North American 1927
Mexico

North American 1983
Alaska, Canada, CONUS

North American 1983
Central America, Mexico

Observaorio Metereo 1939; Azores (Corvo & Flores Islands)

Old Egyptian 1907
Egypt

Old Hawaiian
Mean for Hawaii, Kauai, Maui, Oahu

Old Hawaiian
Hawaii

Old Hawaiian
Kauai

Old Hawaiian
Maui

Old Hawaiian
Oahu

Oman
Oman

Ordinance Survey Great Britain 1936 - Mean for England, Isle of Man, Scotland, Shetland Islands, Wales

Ordinance Survey Great Britain 1936 - England

Ordinance Survey Great Britain 1936 - England, Isle of Man, Wales

Ordinance Survey Great Britain 1936 - Scotland, Shetland Islands

Ordinance Survey Great Britain 1936 - Wales

Pico de las Nieves
Canary Islands

Pitcairn Astro 1967
Pitcairn Island

Point 58

Sweden

Santo (DOS)
1965 Espirito Santo Island

Sao Braz
Azores (Sao Miguel, Santa Maria Islands)

Sapper Hill 1943
East Falkland Island

Schwarzeck
Nambia

Selvagem Grande
Salvage Islands

SGS 85
Soviet Geodetic System 1985

South American 1969
Mean for Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Trinidad & Tobago, and Venezuela

South American 1969
Argentina

South American 1969
Bolivia

South American 1969
Brazil

South American 1969
Chile

South American 1969
Colombia

South American 1969
Ecuador

South American 1969
Ecuador (Baltra, Galapagos)

South American 1969
Guyana

South American 1969
Paraguay
South American 1969
Peru

South American 1969
Trinidad & Tobago

South American 1969
Venezuela

South Asia

Singapore

Tananarive Observatory 1925; Madagascar

Timbalai 1948
Brunei, East Malaysia (Sabah, Sarawak)

Tokyo
Mean for Japan, Korea, Okinawa

Tokyo
Japan

Tokyo
Korea

Tokyo

Okinawa

Tristan Astro 1968
Tristan da Cunha

Viti Levu 1916
Fiji (Viti Levu Island)

Wake

Eniwetok 1960

Marshall Islands

Wake Island Astro 1952
Wake Atoll

WGS 1972
Global Definition

Yacare
Uruguay

Zanderij
Suriname

FCC Compliance

This device complies with Part 15 of the U.S. Federal Communications Commission (FCC) Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment.

Note:
This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the factory customer service department for help.

Notes

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"We", "our", or "us" refers to Lowrance Electronics, Inc., the manufacturer of this product. "You" or "your" refers to the first person who purchases the product as a consumer item for personal, family, or household use. The Databases Limited Warranty applies to the one or more databases that your product may contain. We refer to each of these as a "Database" or together as the "Databases." Your product may thus include the "WBS Database" which contains worldwide background surface mapping data, the "SmartMap Database" which contains inland mapping data, or other Databases.

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If there is a defect in any Database, your exclusive remedy shall be, at our option, either a refund of the price you paid for the product containing the defective Database or a replacement of such product. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

Your remedies under this warranty will be available so long as you can show in a reasonable manner that the defect occurred within one (1) year from the date of your original purchase, and we must receive your warranty claim no later than 30 days after such 1-year period expires. Your claim must be substantiated by a dated sales receipt or sales slip.

LOWRANCE ELECTRONICS
FULL ONE-YEAR WARRANTY

"We," "our," or "us" refers to LOWRANCE ELECTRONICS, INC., the manufacturer of this product. "You" or "your" refers to the first person who purchases this product as a consumer item for personal, family or household use.

We warrant this product against defects or malfunctions in materials and workmanship, and against failure to conform to this product's written specifications, all for one (1) year from the date of original purchase by you. WE MAKE NO OTHER EXPRESS WARRANTY OR REPRESENTATION OF ANY KIND WHATSOEVER CONCERNING THIS PRODUCT. Your remedies under this warranty will be available so long as you can show in a reasonable manner that any defect or malfunction in materials or workmanship, or any non-conformity with the product's written specifications, occurred within one year from the date of your original purchase, which must be substantiated by a dated sales receipt or sales slip. Any such defect, malfunction, or non-conformity which occurs within one year from your original purchase date will either be repaired without charge or be replaced with a new product identical or reasonably equivalent to this product, at our option, within a reasonable time after our receipt of the product. If such defect, malfunction, or non-conformity remains after a reasonable number of attempts to repair by us, you may elect to obtain without charge a replacement of the product or a refund for the product. THIS REPAIR, OR REPLACEMENT OR REFUND (AS JUST DESCRIBED) IS THE EXCLUSIVE REMEDY AVAILABLE TO YOU AGAINST US FOR ANY DEFECT, MALFUNCTION, OR NON-CONFORMITY CONCERNING THE PRODUCT OR FOR ANY LOSS OR DAMAGE RESULTING FROM ANY OTHER CAUSE WHATSOEVER. WE WILL NOT UNDER ANY CIRCUMSTANCES BE LIABLE TO ANYONE FOR ANY SPECIAL, CONSEQUENTIAL, INCIDENTAL, OR OTHER INDIRECT DAMAGE OF ANY KIND.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

This warranty does NOT apply in the following circumstances: (1) when the product has been serviced or repaired by anyone other than us; (2) when the product has been connected, installed, combined, altered, adjusted, or handled in a manner other than according to the instructions furnished with the product; (3) when any serial number has been effaced, altered, or removed; or (4) when any defect, problem, loss, or damage has resulted from any accident, misuse, negligence, or carelessness, or from any failure to provide reasonable and necessary maintenance in accordance with the instructions of the owner's manual for the product.

We reserve the right to make changes or improvements in our products from time to time without incurring the obligation to install such improvements or changes on equipment or items previously manufactured.

This warranty gives you specific legal rights and you may also have other rights which may vary from state to state.

REMINDER: You must retain the sales slip or sales receipt proving the date of your original purchase in case warranty service is ever required.

LOWRANCE ELECTRONICS
12000 E. SKELLY DRIVE, TULSA, OK 74128
(800) 324-1356

How to Obtain Service...

...in the USA:

We back your investment in quality products with quick, expert service and genuine Lowrance parts. If you're in the United States and you have technical, return or repair questions, please contact the Factory Customer Service Department. Before any product can be returned, you must call customer service to determine if a return is necessary. Many times, customer service can resolve your problem over the phone without sending your product to the factory. To call us, use the following toll-free number:

800-324-1356

8 a.m. to 5 p.m. Central Standard Time, M-F

Lowrance Electronics may find it necessary to change or end our shipping policies, regulations, and special offers at any time. We reserve the right to do so without notice.

...in Canada:

If you're in Canada and you have technical, return or repair questions, please contact the Factory Customer Service Department. Before any product can be returned, you must call customer service to determine if a return is necessary. Many times, customer service can resolve your problem over the phone without sending your product to the factory. To call us, use the following toll-free number:

800-661-3983

905-629-1614 (not toll-free)

8 a.m. to 5 p.m. Eastern Standard Time, M-F

...outside Canada and the USA:

If you have technical, return or repair questions, contact the dealer in the country where you purchased your unit. To locate a dealer near you, visit our web site, www.lowrance.com and look for the Dealer Locator.

Accessory Ordering Information for all countries

To order Lowrance GPS accessories such as computer cables or MMC cards, please contact:

1) Your local marine dealer or consumer electronics store. Most quality dealers that handle marine electronic equipment or other consumer electronics should be able to assist you with these items.

To locate a Lowrance dealer near you, visit our web site, www.lowrance.com and click on Support and then click Dealer Locator. Or, you can consult your telephone directory for listings.

2) U.S. customers: LEI Extras Inc., PO Box 129, Catoosa, OK 74015-0129 Call 1-800-324-0045 or visit our web site www.lei-extras.com.

3) Canadian customers can write:
Lowrance/Eagle Canada, 919 Matheson Blvd. E. Mississauga, Ontario L4W2R7 or fax 905-629-3118.

Shipping Information

If it becomes necessary to send a product for repair or replacement, you must first receive a return authorization number from Customer Service. Products shipped without a return authorization will not be accepted. When shipping, we recommend you do the following:

1. Please do not ship the knobs or mounting bracket with your unit.

2. If you are sending a check for repair, please place your check in an envelope and tape it to the unit.

3. For proper testing, include a brief note with the product describing the problem. Be sure to include your name, return shipping address and a daytime telephone number. An e-mail address is optional but useful.

4. Pack the unit in a suitable size box with packing material to prevent any damage during shipping.

5. Write the Return Authorization (RA) number on the outside of the box underneath your return address.

6. For your security, you may want to insure the package through your shipping courier. Lowrance does not assume responsibility for goods lost or damaged in transit.

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